SyncMaster 711NT/ 911NT



Install drivers

Windows

Install programs

Natural Color

MagicTune™



- Safety Precautions
- Introduction
- Connections
- Using Windows CE
- Using the Software
- Adjusting the Monitor
- Troubleshooting
- Specifications
- Information

Safety Precautions

Notation

Please read the following safety instructions as they are designed to prevent damage to property and harm to the user.

Warning / Caution



Failure to follow directions noted by this symbol could result in bodily harm or damage to the equipment.

Notational Conventions



Prohibited



Important to read and understand at all times



Do not disassemble



Disconnect the plug from the outlet



Do not touch



Ground to prevent an electric shock

Power



When not used for extended period of time, set your computer to DPM.
If using a screen saver, set it to active screen mode.
The images here are for reference only, and are not applicable in all cases (or countries).

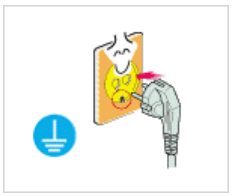
Shortcut to Anti-Afterimage Instructions



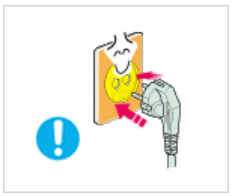
- Do not use a damaged or loose plug.
 - This may cause electric shock or fire.



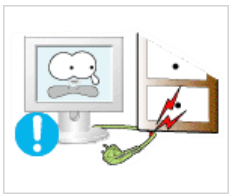
- Do not pull the plug out by the wire nor touch the plug with wet hands.
 - This may cause electric shock or fire.



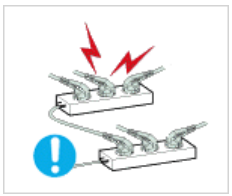
- Use only a properly grounded plug and receptacle.
 - An improper ground may cause electric shock or equipment damage. (Class I Equipment only.)



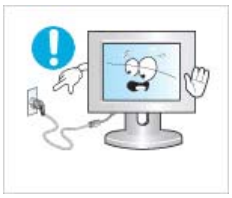
- Insert the power plug firmly so that it does not come loose.
 - A bad connection may cause fire.



- Do not excessively bend the plug and wire nor place heavy objects upon them, which could cause damage.
 - This may cause electric shock or fire.



- Do not connect too many extension cords or plugs to one outlet.
 - This may cause fire.



- Do not disconnect the power cord while using the monitor.
 - A surge may be caused by the separation and may damage the monitor.

- Do not use the power cord when the connector or plug is dusty.
 - If the connector or plug of the power cord is dusty, clean it with a dry cloth.
 - Using the power cord with a dusty plug or connector may cause electric shock or fire.





- To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily operable.
 - This may cause electric shock or fire.

Installation



Be sure to contact an authorized Service Center when installing your set in a location with heavy dust, high or low temperatures, high humidity, and exposed to chemical substances andwhere it will be operated for 24 hours continuously such as an airport, train station or etc.

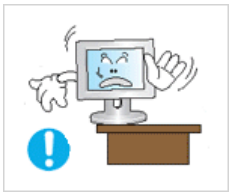
Failure to do so may cause serious damage to your monitor.



- Place your monitor in a location with low humidity and a minimum of dust.
 - Failure to do so may cause electric shock or fire inside the monitor.



- Do not drop the monitor when moving it.
 - This may cause damage to the product or the person carrying it.

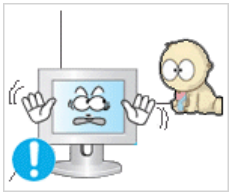


- Install the monitor base in a showcase or shelf so that the end of the base does not protrude from the showcase or shelf.
 - Dropping the product may cause damage to the product or the person carrying it.



- Do not place the product on an unstable or small surface area.
 - Place the product on an even and stable surface, as the product may fall and cause harm to someone walking by, specifically children.

- Do not place the product on the floor.
 - Take care, as someone, specifically children may trip over it.

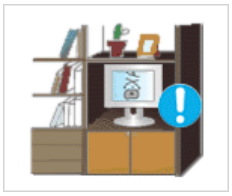




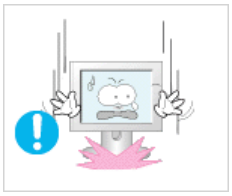
- TO PREVENT THE SPREAD OF FIRE, KEEP CANDLES OR OTHER OPEN FLAMES AWAY FROM THIS PRODUCT AT ALL TIMES.
 - Otherwise, this may cause fire.



- Keep any heating devices away from the power cable.
 - A melted coating may cause electric shock or fire.



- Do not install the product in places with poor ventilation, for instance, a bookshelf, closet, etc.
 - Any increase in the internal temperature may cause fire.



- Put down the monitor carefully.
 - Failing to do so may damage the monitor.



- Do not place the monitor face down.
 - This may damage the TFT-LCD surface.



- The installation of the bracket must be done by a qualified professional.
 - Installing the bracket by unqualified personnel may result in injury.
 Always use the mounting device specified in the owner's manual.



- When installing the product, make sure to keep it away from the wall (more than 10 cm/4 inches) for ventilation purposes.
 - Poor ventilation may cause an increase in the internal temperature of the product, resulting in a shortened component life and degraded performance.

- Keep the plastic packaging (bag) out of children’s reach.



- The plastic packaging (bag) may cause suffocation if children play with it.

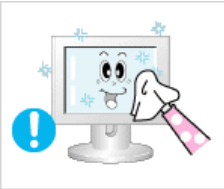
Cleaning and Using



When cleaning the monitor case or the surface of the TFT-LCD screen, wipe with a slightly moistened, soft fabric.



- Do not spray water or detergent directly onto the monitor.
 - This may cause damage, electric shock or fire.



- Use the recommended detergent with a smooth cloth.



- If the connector between the plug and the pin is dusty or dirty, clean it properly using a dry cloth.
 - A dirty connector may cause electric shock or fire.



- Make sure to unplug the power cord before cleaning the product.
 - Otherwise, this may cause electric shock or fire.



- Unplug the power cord from the power outlet and wipe the product using a soft, dry cloth.
 - Do not use any chemicals such as wax, benzene, alcohol, thinners, insecticide, air freshener, lubricant or detergent.

- Contact the SAMSUNG customer care center or Customer Center for interior cleaning once a year.
 - Keep the product's interior clean.
 Dust which has accumulated in the interior over an extended period of time may



cause a malfunction or fire.

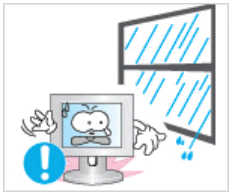
Others



- Do not remove the cover (or back).
 - This may cause electric shock or fire.
 Refer to a qualified servicing company.



- If your monitor does not operate normally - in particular, if there is any unusual sound or smell coming from the monitor - unplug it immediately and contact an authorized dealer or the Service Center.
 - This may cause electric shock or fire.



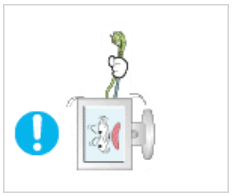
- Keep the product away from places exposed to oil, smoke or moisture; do not install inside a vehicle.
 - This may cause a malfunction, electric shock or fire.
 In particular, avoid operating the monitor near water or outdoors where the monitor.



- If the monitor is dropped or the casing is damaged, turn the monitor off and unplug the power cord. Then contact the Service Center.
 - The monitor may malfunction, causing electric shock or fire.

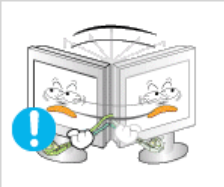


- Disconnect the plug from the outlet during storms or lightning or if it is not used for a long period of time.
 - Failure to do so may cause electric shock or fire.

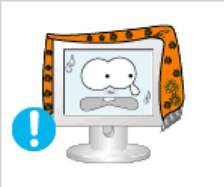


- Do not try to move the monitor by pulling only the wire or the signal cable.
 - This may cause a breakdown, electric shock or fire due to damage to the cable.

- Do not move the monitor right or left by pulling only the wire or the signal cable.



- This may cause a breakdown, electric shock or fire due to damage to the cable.



- Do not cover the vents on the monitor cabinet.
 - Bad ventilation may cause a breakdown or fire.



- Do not place water containers, chemical products or small metal objects on the monitor.
 - This may cause a malfunction, electric shock or fire.
 If a foreign substance enters the monitor, unplug the power cord and contact the Service Center.



- Keep the product away from combustible chemical sprays or inflammable substances.
 - This may cause an explosion or fire.



- Never insert anything metallic into the monitor openings.
 - This may cause electric shock, fire or injury.



- Do not insert metal objects such as chopsticks, wire and tools or inflammable objects such as paper or matches into the vent, headphone port or AV ports or etc.
 - This may cause electric shock or fire.
 If an alien substances or water enters the product, turn the product off, unplug the power connector from the wall outlet and contact the Service Center.



- When viewing a fixed screen for an extended period of time, residual image or blurriness may appear.
 - Change the mode to energy saving mode or set a screensaver to a changing picture when away from the monitor for an extended period of time.

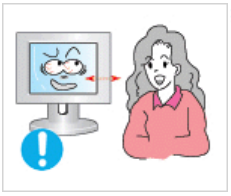


- Adjust the resolution and frequency to the level appropriate for the model.
 - An inappropriate resolution may cause undesirable picture quality.

 17 inch (43 cm),19 inch (48 cm) - 1280 x 1024



- Keep the volume at a comfortable level when using the headphones.
 - Excessively loud volume level may damage hearing.



- Viewing the monitor continuously at a too close angle may result in damage to your eyesight.



- To ease eye strain, take at least a five-minute break after every hour of using the monitor.



- Do not install the product on an unstable, uneven surface or a location prone to vibrations.
 - Dropping the product may cause damage to the product or the person carrying it. Using the product in a location prone to vibrations may shorten the lifetime of the product or may cause the product to catch fire.



- When moving the monitor, turn off and unplug the power cord. Make sure that all cables, including the antenna cable and cables connected to other devices, are disconnected before moving the monitor.
 - Failure to disconnect cables may damage it and cause fire or electric shock.



- Place the product out of children's reach, as they could damage by hanging onto it.
 - A falling product may cause injury to the person or even fatality.



- When not using the product for an extended period of time, keep the product unplugged.
 - Otherwise, this may cause heat emission from the accumulated dirt or degraded insulation, causing electric shock or fire.



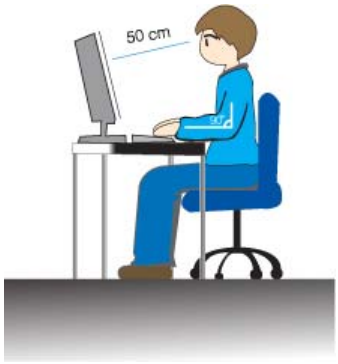
- Do not place your children's favorite toys or any other objects of interest on the product.
 - Children may try to climb on the product to retrieve an object.
 The product could fall, causing injury or even fatality.



When lifting up or moving the monitor, do not lift the monitor upside down while holding only the stand.

This may cause your monitor to fall, and become damaged or cause personal injury.

Proper Seating Posture During Monitor Use



Try to maintain a good posture when using the monitor.

- Keep your back straight.
- Keep a distance of about 45 ~ 50 cm between your eyes and the monitor screen. Look at the screen from slightly above it, and have the monitor directly in front of you.
- Tilt the monitor upwards by 10 ~20 degrees. Adjust the monitor height so that the top of the monitor is slightly below eye level.
- Adjust the monitor angle so that there is no reflected light on the screen.Try to maintain your arms perpendicular to your armpits.
- Keep your arms level with the back of your hands.
- Keep the angle of the elbow perpendicular.
- Keep the angle of the knees at more than 90 degree. Do not let your feet fall up from the floor. Adjust the arm position so that it is below the heart.

Correct Disposal of This Product
(Waste Electrical & Electronic Equipment) - Europe only



(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

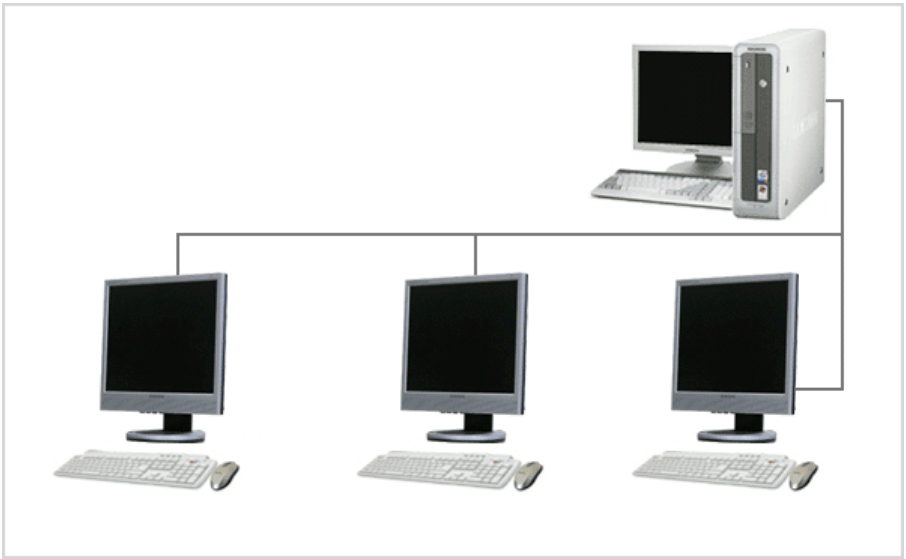
Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.



Features

What is a network monitor?



- A network monitor can be used for the same purposes as a common monitor. It also provides the functionalities of most computers, such as an Internet connection, creating documents, editing images, via a connection to the host PC over the LAN. In addition, it allows you to connect an external device (DSC, MP3, external storage media) to the USB port and play music, movies and games. It is a new concept monitor.
- You also can share the screen being displayed on your network monitor with other users by connecting a projector or other display device to its VGA OUT port. You can use this functionality for video conferencing and a variety of shared tasks.
- In addition, because Windows XP is installed on your network monitor, you can perform Internet searches and USB memory searches independently of your host PC.

Package Contents

Please make sure the following items are included with your monitor.
If any items are missing, contact your dealer.
Contact a local dealer to buy optional items.

Unpacking



Without stand



With Stand

Manual



Quick Setup Guide

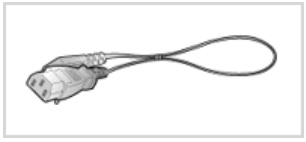


Warranty Card
(Not available in all locations)



User's Guide, Monitor Driver, Natural Color software, MagicTune™ software

Cable



Power Cord

Sold separately



Keyboard (USB)



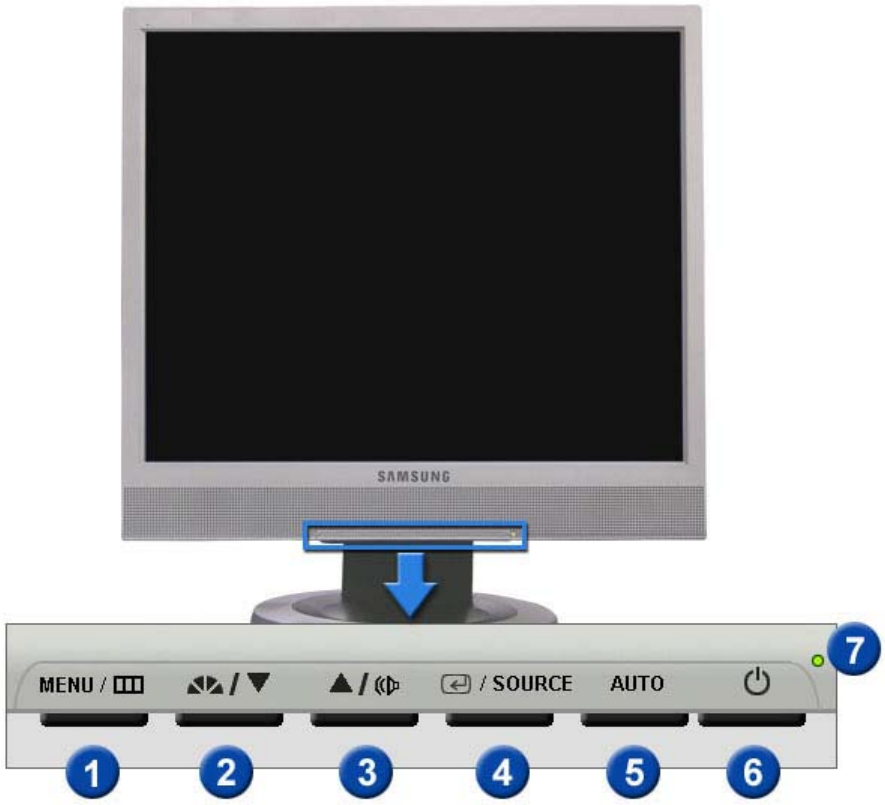
Mouse (USB)



D-Sub Cable

Your Monitor

Front



1	MENU button [▭]	Opens the OSD menu. Also use to exit the OSD menu or return to the previous menu.
2	MagicBright™ button [▲]	MagicBright™ is a new feature providing optimum viewing environment depending on the contents of the image you are watching. Currently six different modes are available : Custom, Text, Internet, Game, Sport and Movie. Each mode has its own pre-configured brightness value. You can easily select one of six settings by simply pressing MagicBright™ control button. 1) Custom Although the values are carefully chosen by our engineers, the pre-configured values may not be comfortable to your eyes depending on your taste. If this is the case, adjust the brightness and contrast by using the OSD menu. 2) Text For documentations or works involving heavy text. 3) Internet For working with a mixture of images such as text and graphics. 4) Game For watching motion pictures such as a game. 5) Sport For watching motion pictures such as a sport. 6) Movie

For watching motion pictures such as a DVD or Video CD.

>> Click here to see an animation clip

3	Volume button [🔊]	When OSD is not on the screen, push the button to adjust volume.
2,3	Adjust buttons [▼/▲]	Adjust items in the menu.
4	Enter button [⏎] / SOURCE button	Activates a highlighted menu item. / Push the 'SOURCE', then selects the video signal while the OSD is off. (When the SOURCE button is pressed to change the input mode, a message appears in the upper left of the screen displaying the current mode -- Analog or Client input signal.) >> Click here to see an animation clip
5	AUTO button	Use this button for auto adjustment. >> Click here to see an animation clip
6	Power button [⏻]	Use this button for turn the monitor on and off. ※ Be careful as pressing the Power button in client mode will shut down Windows XPe. Be careful that if you force shut down Windows it may cause damage. In these cases your monitor will be forcefully shut down and this may cause damage to your operating sysetm. Therefore ensure that the EWF function is enabled. 1. Turn the power off by holding down the Power button after switching to Monitor mode from Client mode. 2. Turn the power off by holding down the Power button for more than five(5) seconds in Client mode. When unable to boot up your computer because of a Windows crash, please contact your Administrator.
7	Power indicator	This light glows green during normal operation, and blinks green once as the monitor saves your adjustments.

※ See PowerSaver described in the manual for further information regarding power saving functions. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods.

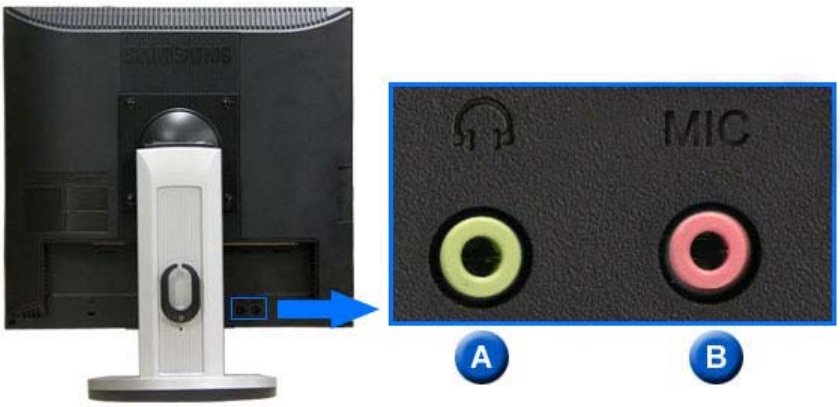
Rear



※ The configuration at the back of the monitor may vary from product to product.

1	POWER IN port	Connect the power cord for your monitor to the power port on the back of the monitor.
2	VGA IN port	Connect the signal cable to the 15-pin, D-sub port on the back of your monitor.

3	RS-232C Connection Terminal	Connect a RS-232C cable to this terminal.
4	VGA OUT port	Connect a monitor to another monitor through a D-Sub cable.
5	Kensington Lock	The Kensington lock is a device used to physically fix the system when using it in a public place. ※ The locking device has to be purchased separately. For using a locking device, contact where you purchase it.
6	Cable Fix Ring	When connecting the cable is finished, fix the cables to the Cable Fix Ring.



A	Earphone jack [🎧]	Headphone connection terminal.
B	The Microphone connection terminal (MIC)	Connect a microphone to the MIC terminal.



C	USB (USB Connection Terminal)	Connect USB devices such as a mouse, keyboard and external storage devices (DSC, MP3, external storage, etc.).
D	LAN (LAN Connection Terminal)	Connect when using it as a monitor.
E	AUDIO IN	Connect the audio cable for your monitor to the audio port on the back of your computer.

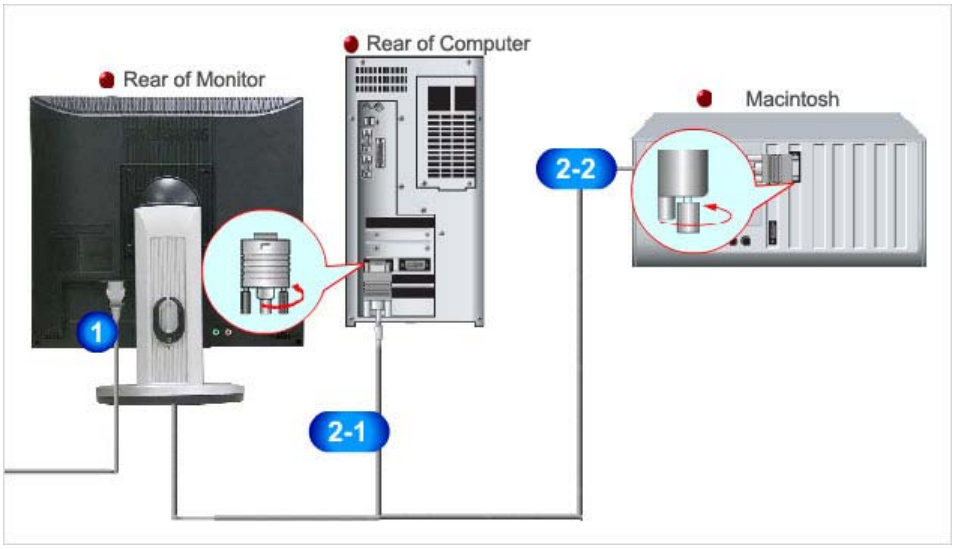
※ See Connecting Cables for further information regarding cable connections.



Connections

Connecting Cables

Connecting Cables (When used as a normal monitor)

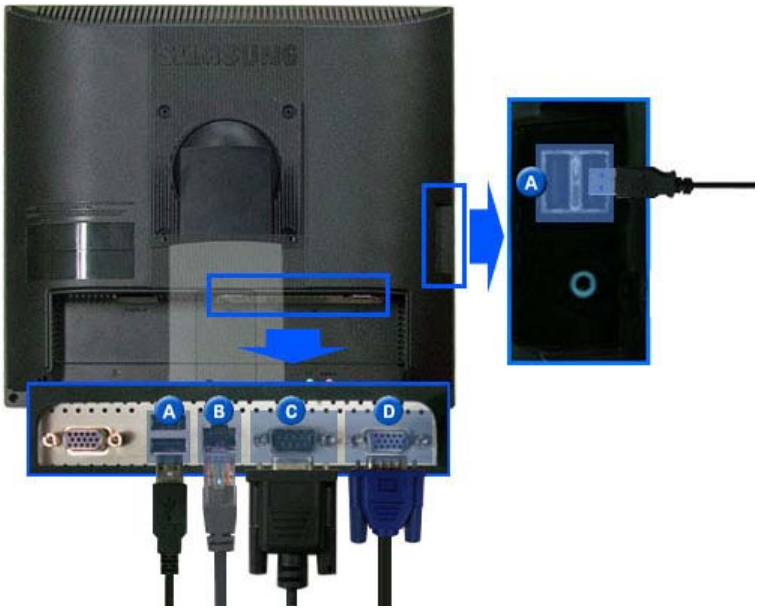


1. Connect the power cord for your monitor to the power port on the back of the monitor.
 Plug the power cord for the monitor into a nearby outlet.
2. Use appropriate connection for your computer.
 - 2-1 Using the D-sub (Analog) connector on the video card.
 - Connect the D-Sub Cable to the VGA IN port on the back of your monitor.

  [VGA IN]
 - 2-2 Using Macintosh
 - Connect the monitor and the Macintosh computer using the computer connection cable.

※ If the monitor and the computer are connected, you can turn them on and use them.

External Device Connection



A USB (USB Connection Terminal)	Connect USB devices such as a mouse, keyboard and external storage devices (DSC, MP3, external storage, etc.).
B LAN (LAN Connection Terminal)	Connect the LAN cable.
C RS-232C Connection Terminal	Connect a RS-232C cable to this terminal.
D D-sub 15-pin port [VGA OUT]	Use it by connecting it to another monitor. (The picture of the main monitor is displayed on the connected monitor.)

Using the Stand

Tilt angle



※

You can tilt the monitor screen forward to adjust the angle to a particular angle.

Swivel stand



※ You can easily adjust the position of the monitor screen from right to left using the rotating stand. Rubber stubs are attached at the bottom of the monitor to help fix it to the installation location.

Using Other Stands

Attaching a Base

※ This monitor accepts a 100 mm x 100 mm VESA-compliant mounting interface pad.



A Monitor B Mounting interface pad (Sold separately)

1. Turn off your monitor and unplug its power cord.
2. Lay the LCD monitor face-down on a flat surface with a cushion beneath it to protect the screen.
3. Remove four screws and then remove the stand from the LCD monitor.
4. Align the mounting interface pad with the holes in the rear cover mounting Pad and secure it with four screws that came with the arm-type base, wall mount hanger or other base.

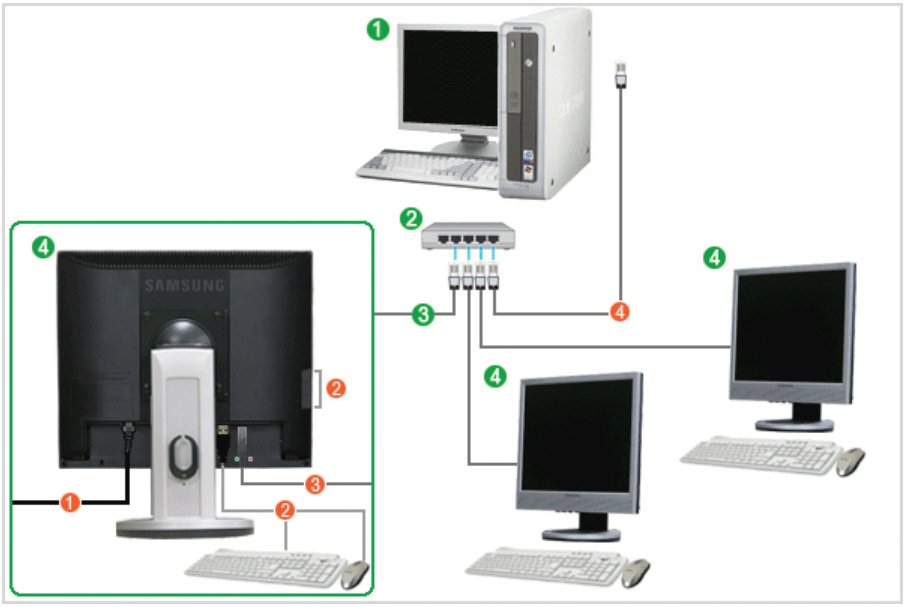
- Do not use screws longer than the standard dimension, as they may damage the inside of the Monitor.

- For wall mounts that do not comply with VESA standard screw specifications, the length of the screws may differ depending on their specifications.
- Do not use screws that do not comply with the VESA standard screw specifications.
 Do not fasten the screws too tightly, as this may damage the product or cause the product to fall, leading to personal injury.
 Samsung is not liable for these kinds of accidents.
- Samsung is not liable for product damage or personal injury when a non-VESA or non-specified wall mount is used or the consumer fails to follow the product installation instructions.

- To mount the monitor on a wall, you should purchase the wall mounting kit that allows you to mount the monitor at least 10cm away from the wall surface.
- Contact the nearest Samsung Service Center for more information. Samsung Electronics will not be responsible for damages caused by using a base other than those specified.
- **Please use Wall Mount according to the International standards.**



Connecting a Client Monitor



1 Host PC 2 Hub 3 LAN Cable 4 Monitor

1. Connect the power cord to the power terminal at the back of the monitor.
2. Connect the mouse and the keyboard to the USB ports.
3. Connect the LAN port on the back of the monitor and the hub.
4. Connect the hub and the LAN port of the host PC.

※ The host PC must have an IP address.

After connecting the LAN and setting the IP address, you can view the host PC screen on the monitor.

Use the VGA IN port to directly connect the monitor to a PC.

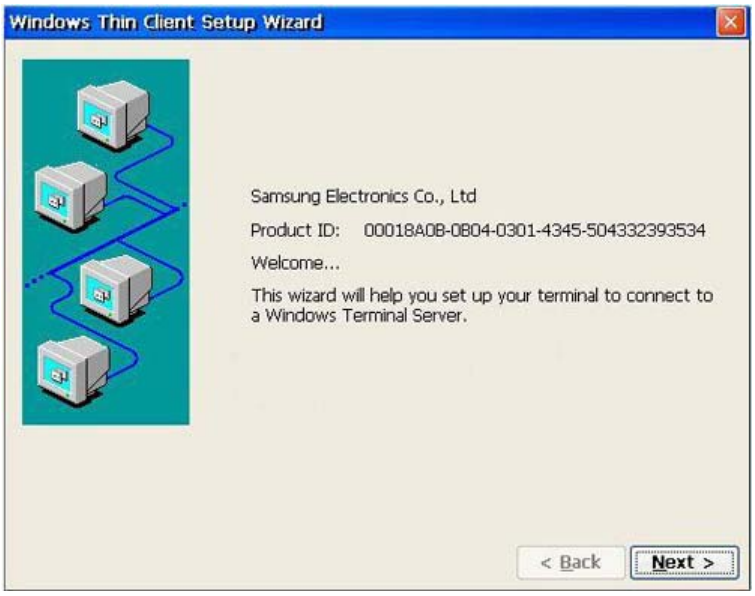
Connect to the VGA OUT port to display the same picture on another monitor such as the projector. (For presentation purposes)

Use the USB port to connect an external storage device (DSC, MP3, external storage, etc.).

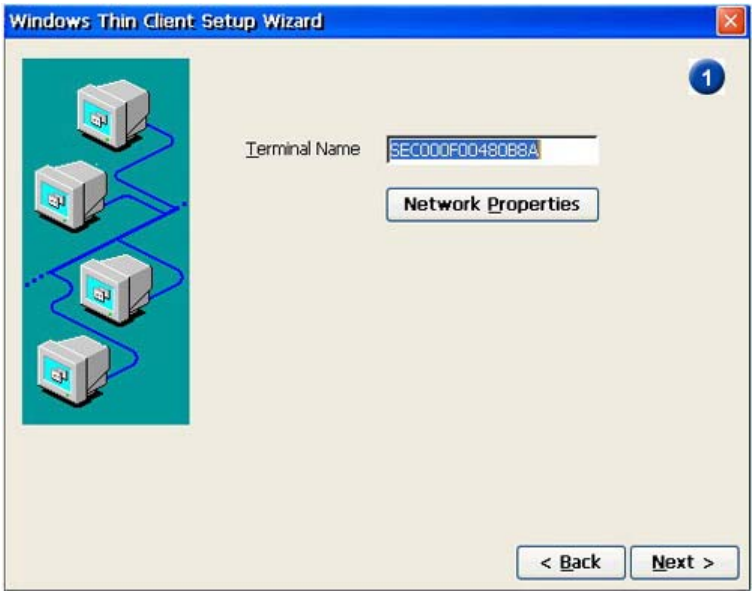
Setup Client Monitor

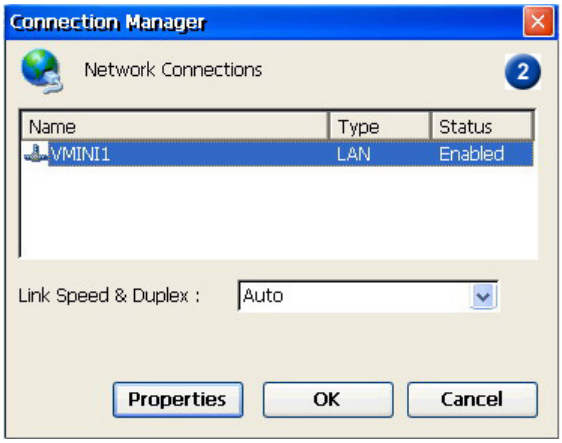
The Thin Client Setup Wizard is executed when a thin client is installed for the first time, data are not backed up after update, or the Reset the terminal to factory default settings check box is checked on Control Panel -> System. The Thin Client Setup Wizard helps configure basic settings. The procedure for this is as follows:

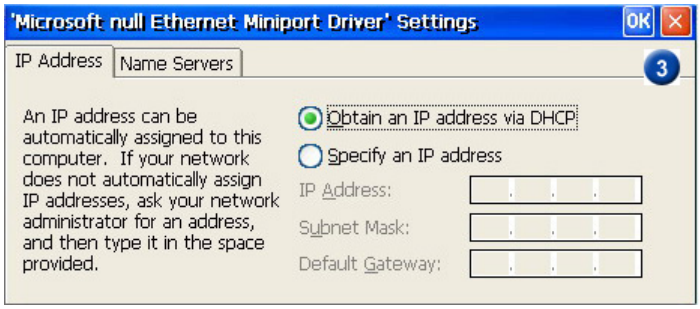
1. When starting the system for the first time, the Thin Client Setup Wizard is launched as shown below. If **Next** is not clicked during the 15 second countdown after the first 30 seconds, all settings are configured to the factory defaults and the setup wizard is exited.



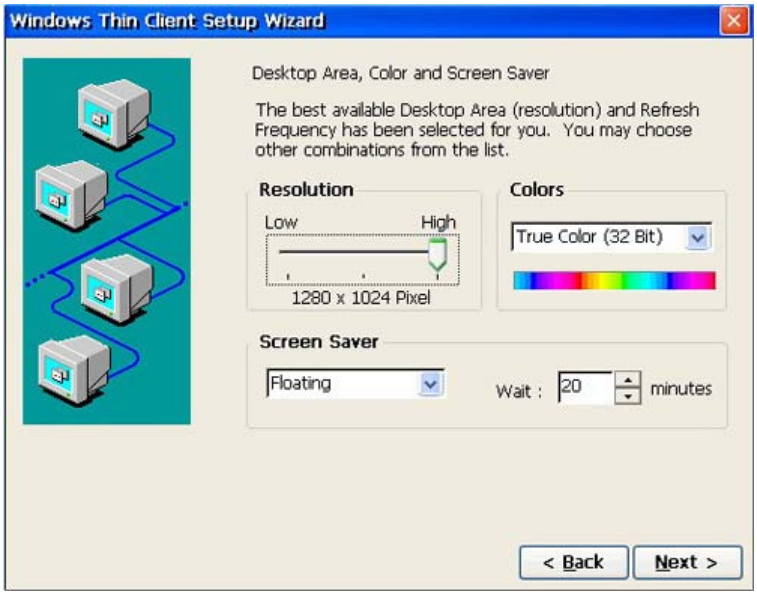
2. When entering a terminal name and clicking on **Network Properties**, the **Network Manager** dialog box is displayed. This dialog box shows a list of adapters installed on your terminal. You can change the properties of an adaptor, such as the IP address and name server, by clicking on **Properties**.
 Click **Next** to proceed to the next step.



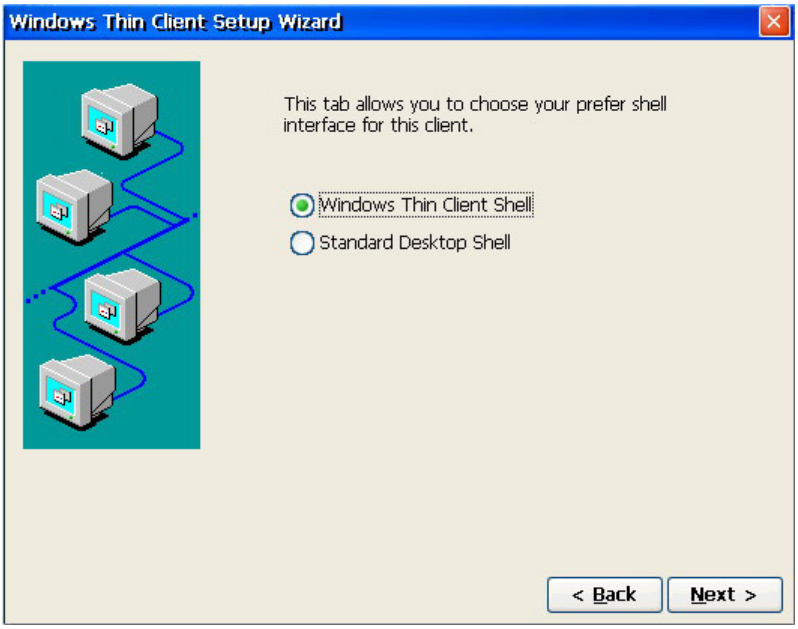




3. Configure the resolution, the color settings, and the screensaver. Then click **Next**.



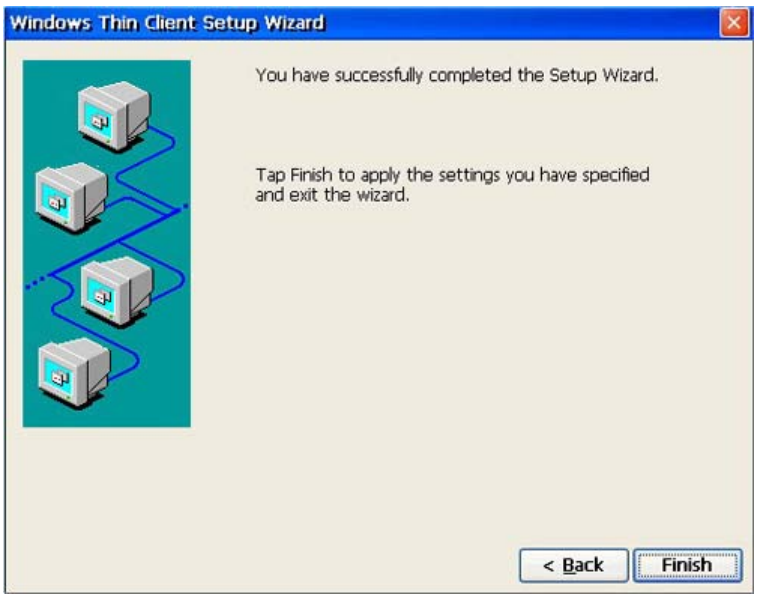
4. Select the **shell interface** to use with the terminal.
Click **Next** to proceed to the next step.



5. In the next window, set the other terminal properties and click on Next. For more information on terminal properties, refer to Configuring the Client Monitor Environment.



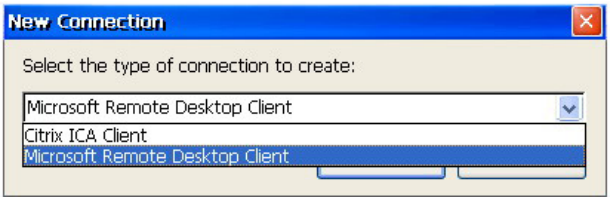
6. If you want to change any of the settings you have configured, click on **Back** or click on **Finish** to complete the Setup Wizard.
The thin client then completes the Setup Wizard and restarts the terminal automatically.



Connecting to the Host PC

You can add, edit or remove connections using the Terminal Connection Manager (Thin Client Shell) or the icon/menus on the Desktop. However, this function requires administrator privileges. If you logged on as a limited user, the menus for configuring connections are hidden or deactivated.

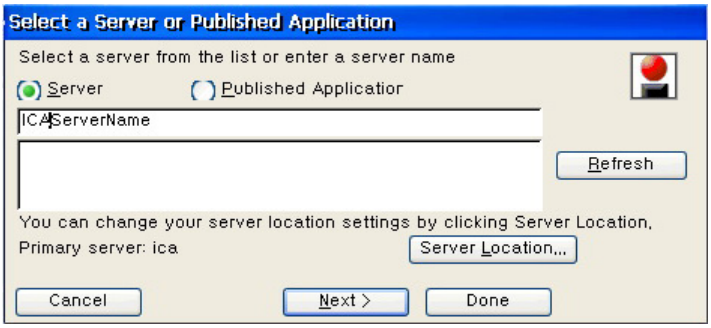
If you click the Add button or the Add New Connection menu on the Terminal Connection Manager, the New Connection window is displayed. If you select a connection to create and click OK, the Connection Wizard is executed.



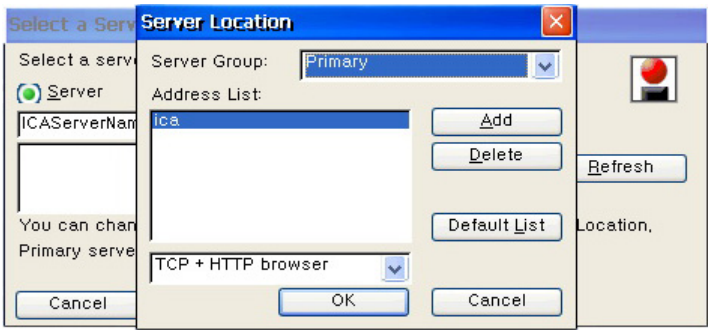
- Citrix ICA Client: ICA
 When using a terminal server on a variety of operating systems such as Unix and Linux as well as Windows.
- Microsoft Remote Desktop Client: RDP
 When using a terminal server on the Windows operating system.

Citrix ICA Client

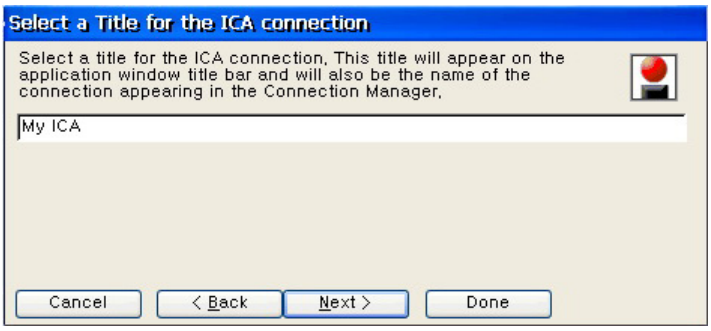
1. Select a server from the server list or enter server information (IP address, DNS name) directly. To update the server list, click Refresh.



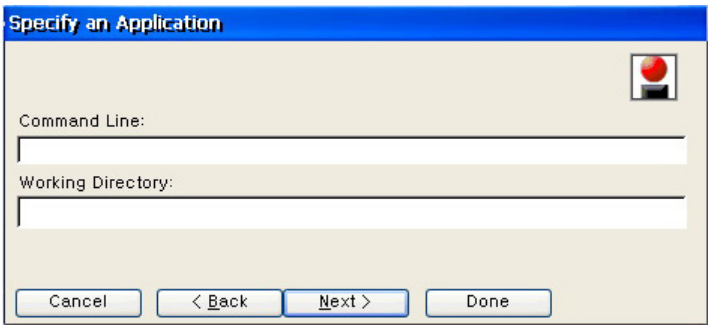
Click on Server Location and configure the server properties in the displayed window.
Click Next to proceed to the next step.



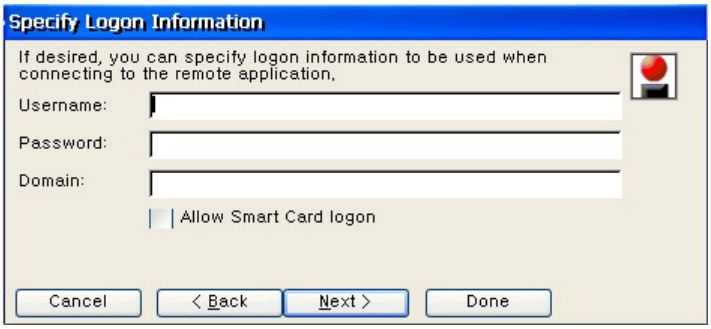
2. Enter the name that will be displayed in the list on the Terminal Connection Manager (or as a connection icon on the Desktop) and click Next.



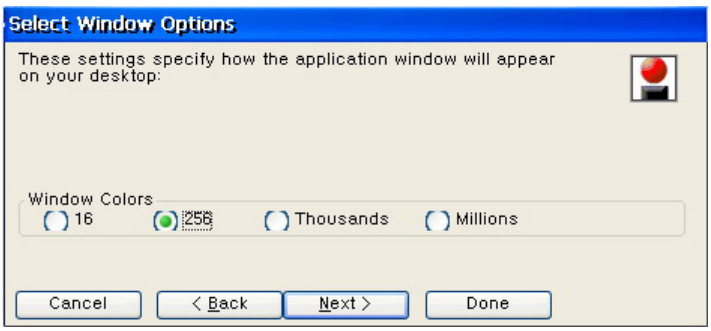
3. When you connect to the server, the server's Desktop is displayed on the monitor, by default. If you want to start an application when connected, enter its name and working directory. Click Next to proceed to the next step.



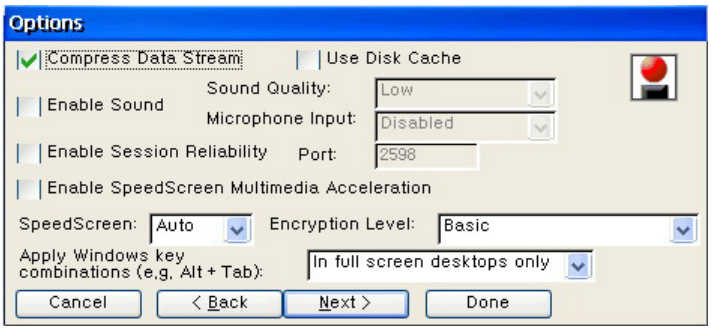
4. If you want to log on the server automatically when connected, enter user name, password and domain. If you wan to use a smart card for login, check the 'Allow Smart Card logon' checkbox. Click Next to proceed to the next step.



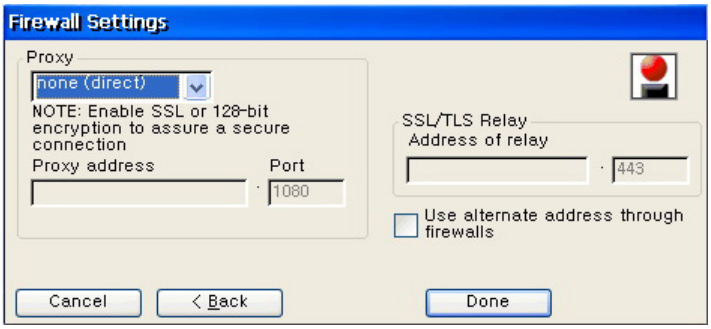
5. Select window colors. Selecting a small number of colors speeds up overall processing on the network. Click Next to proceed to the next step.



6 Select compression, encryption, and sound options for ICA connection.

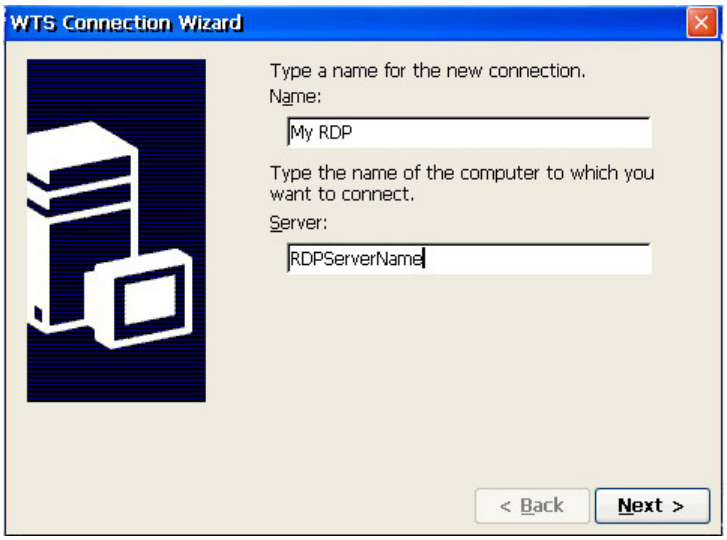


7 Enter the information required to pass firewalls or security policies.

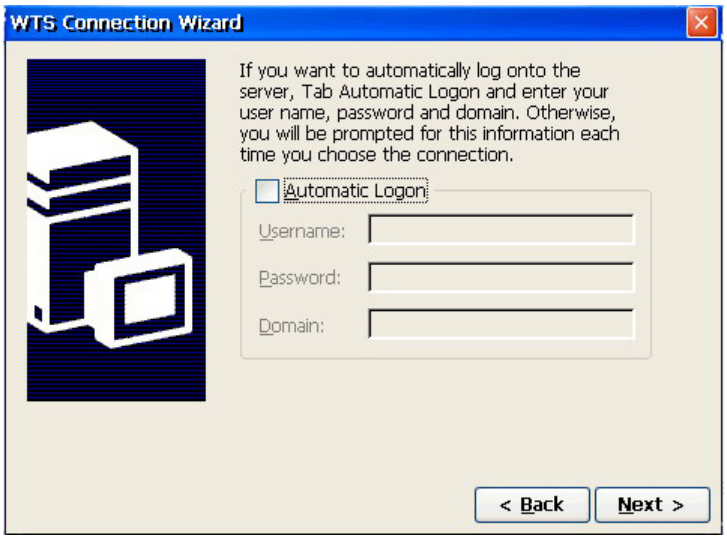


- Microsoft Remote Desktop Clinet

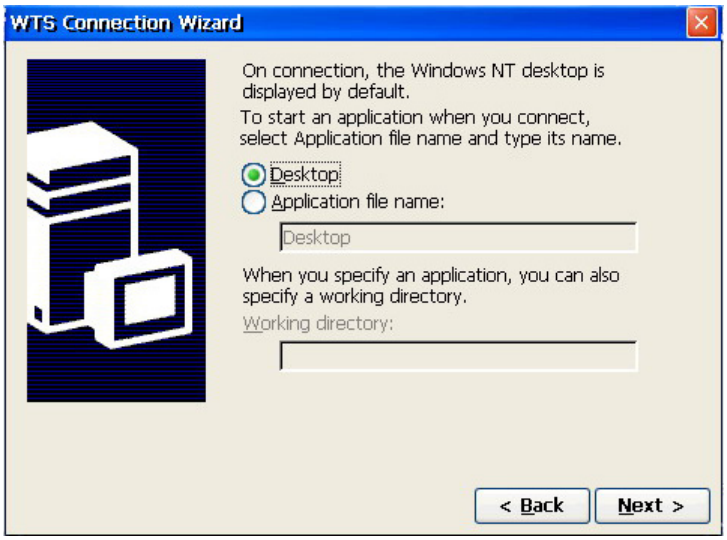
1 Enter a name for the connection and host PC's name. The name you enter will be displayed in the list on the Terminal Connection Manager (or as a connection icon on the Desktop). You can enter an IP address or DNS name for host PC's name.
Click Next to proceed to the next step.



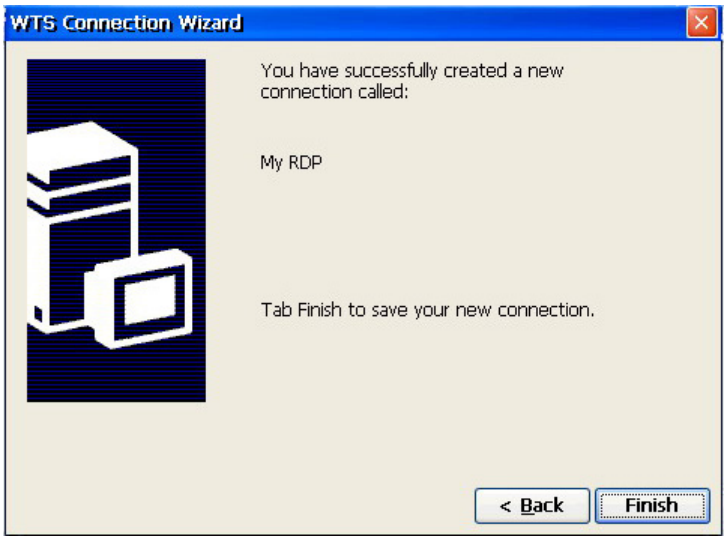
2 If you want to log on the host PC automatically when connected, check the 'Auto Login' check box and enter user name, password and domain.
Click Next to proceed to the next step.



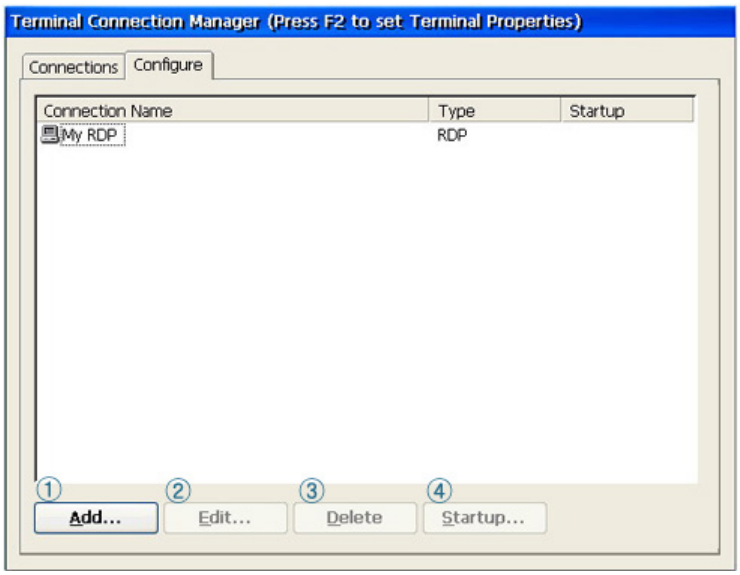
3. When connected to the host PC, Window NT Desktop is displayed on the monitor, by default. If you want to start an application when connected, enter its path and file name. Click Next to proceed to the final step.



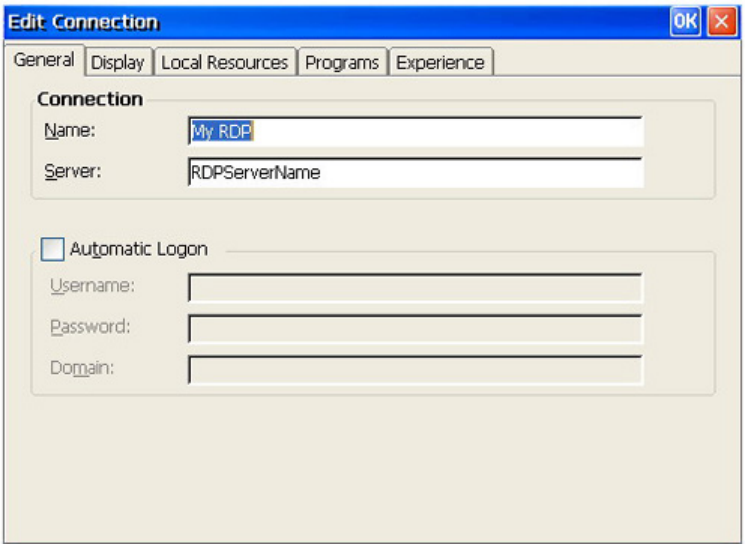
4. Save the new connection and finish the WTS Connection Wizard.



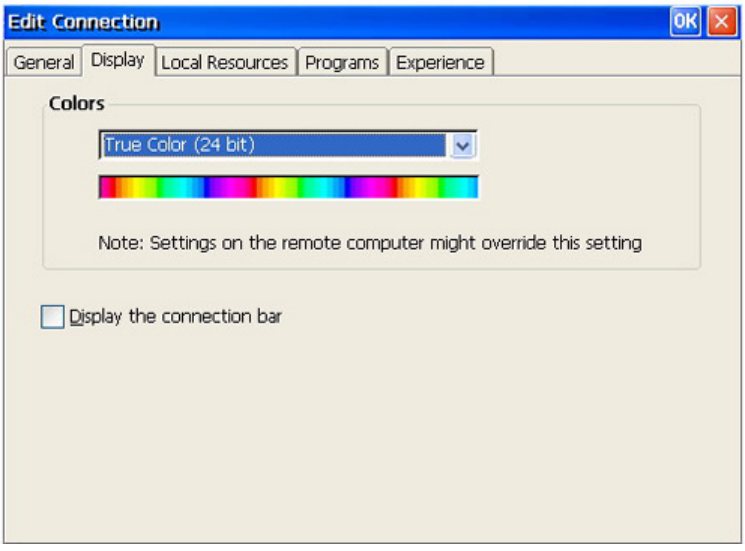
5. If you want to change settings, select a new setting and click Edit.



General : Displays information such as the connection name and the host PC name when auto login is selected.



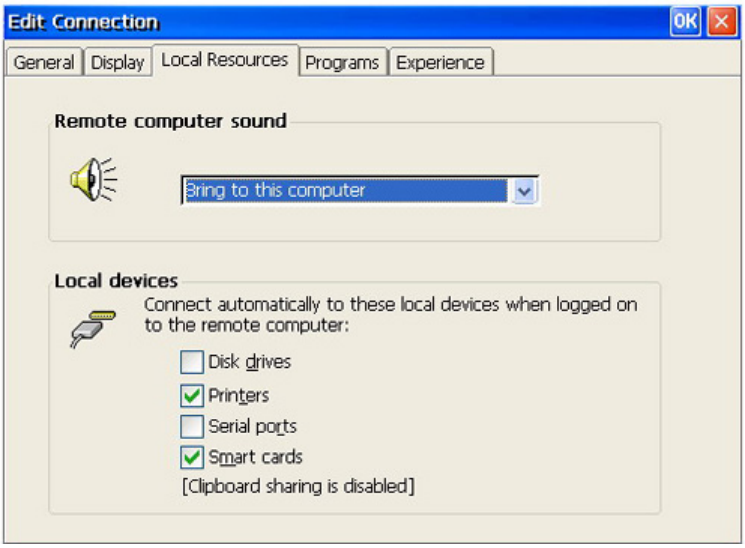
Display : Configures the screen resolution. Make sure to set a value higher than the minimum value that the computer you want to connect to supports.



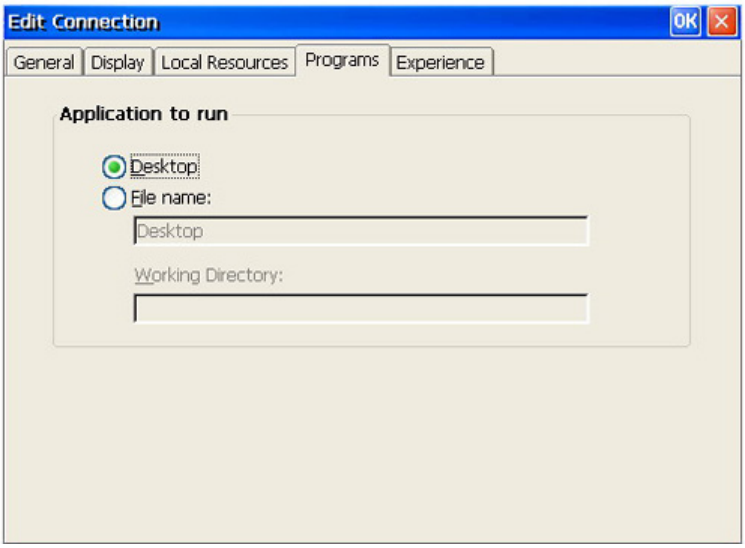
Local Resources

Remote Computer Sound : You can configure the sound so that you can easily identity the connection state.

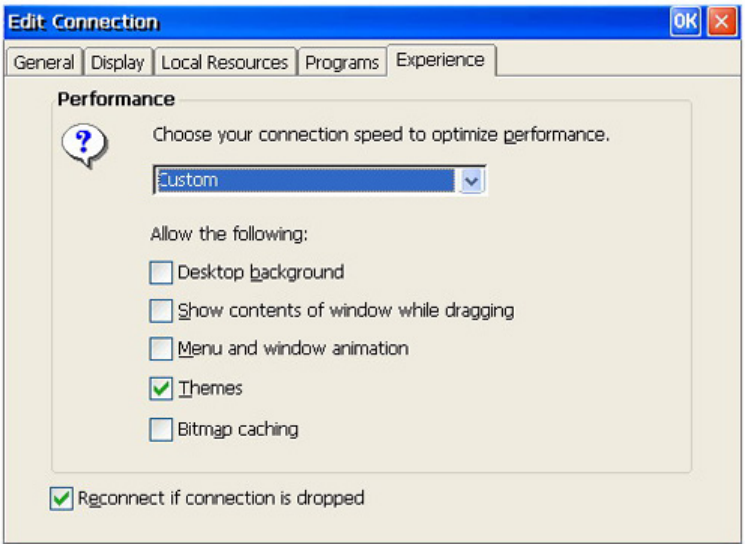
Local Device : Select one of the external devices which are being connected to the host PC computer you want to connect to.



Programs : Specify what is displayed on the first screen when connected. You can select the Desktop or an application program.

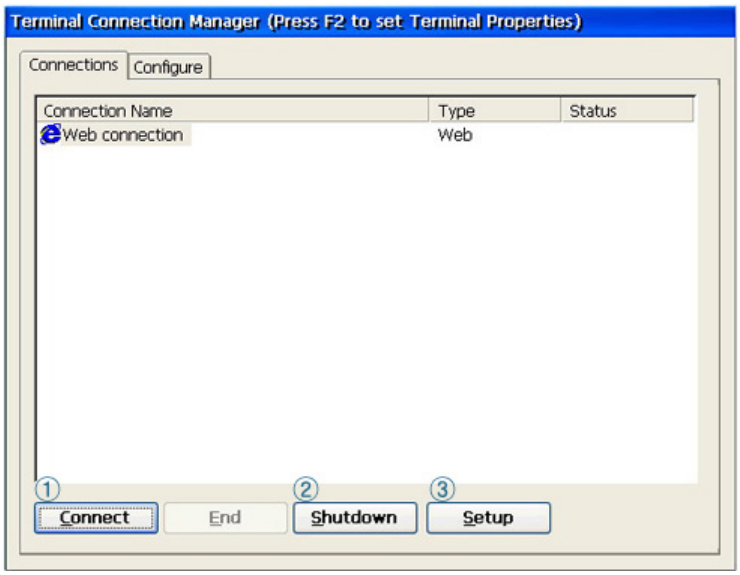


Experience : You can configure the communications speed between your terminal and the host. You can also share a set of configurations for the host PC with other terminals. You can configure your terminal settings so that it tries to reconnect automatically whenever it is disconnected.



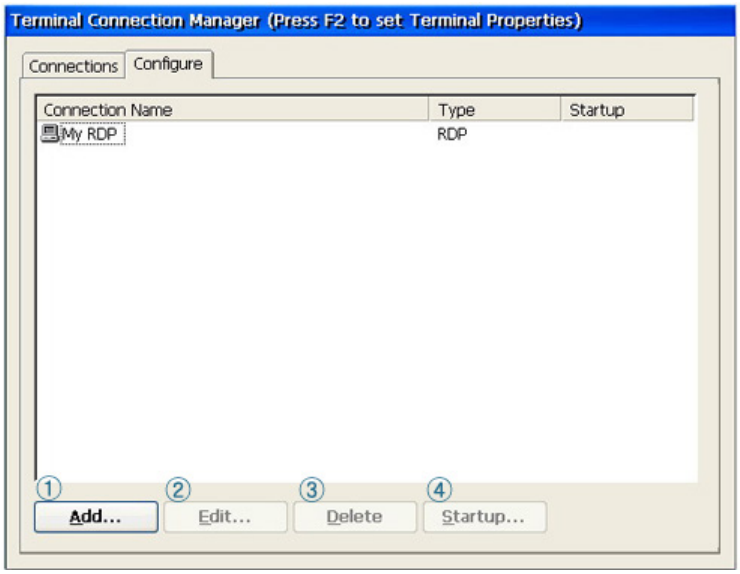
Terminal Connection Manager

❶ Connections Tab.



① Connect :Selects the host PC to connect to, or opens an Internet window.
② Shutdown:Icons/Menus on the Desktop (Desktop Shell) : Start > Shut down
You can shut down or restart the system.
③ Setup :Icons/Menus on the Desktop (Desktop Shell) : Start>Settings>Control Panel
You can configure the settings for the computers contained in the product.
For more information, see Configuring the Client Monitor Environment.

❷ Configure Tab



① Add : You can add a new host PC to your network.
For more information, see How to Connect a Host PC.
② Edit : You can change the settings for a host PC connection.
Fore more information, see Editing.
③ Delete : When clicking **Delete** in the Terminal Connection Manager window or clicking **Delete** in the displayed menu when right-clicking a connection icon, a **Confirm Connection Deletion** message box is displayed.
④ Startup : When clicking on **Startup Options** in the Terminal Connection Manager window, the **Connection Startup Options** dialog is displayed. When selecting the '**Run the selected connection automatically when started**' checkbox, the selected connection is run automatically after finishing a login.

Opening/Closing a Connection

To open a connection, double-click a connection in the Configure tab of the Terminal Connection Wizard or click the Connect button. Alternatively, you can double-click a connection icon, or you can right-click it and select Open from the displayed menu. To close a connection, click the Close button

in the Configure tab of the Terminal Connection Wizard or close the connection window. The Close button is only activated if the selected connection is being connected.

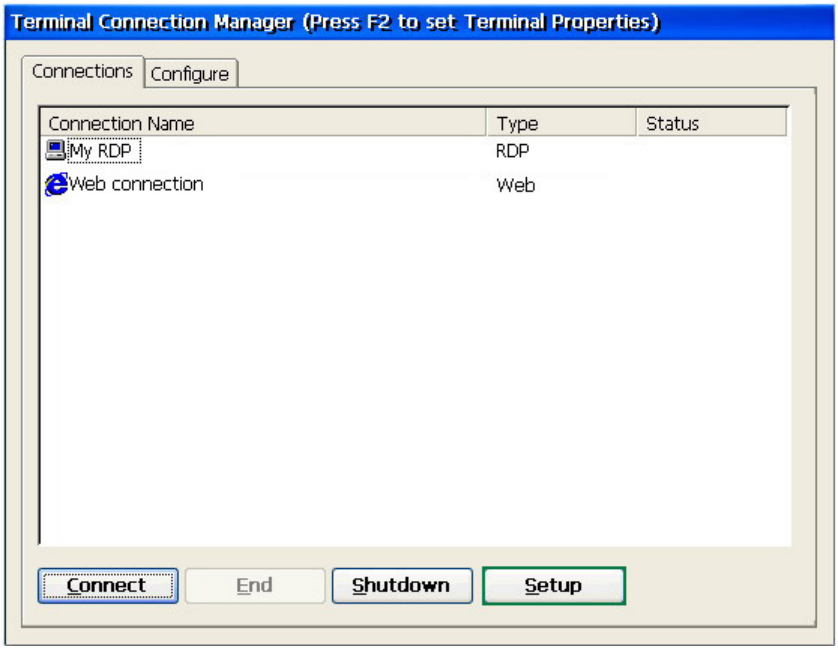
※ Using shortcut keys when multiple connections are running:
Ctrl + Alt + End: Displays either the **Terminal Connection Wizard**(for Thin Client Shell) or the **Desktop**(for Desktop Shell).
Ctrl + Alt + ↑(or ↓): Allows you to switch to a different connection.

Configuring Client Monitor Environment

The available items on Control Panel are different according to privileges of login account. When logged on with Administrator privileges, all items are displayed and available. If you logged on as a limited user, only the items that the administrator permitted are displayed. This can be configured with Control Panel > Security > Privileges.
If you click on an item on Control Panel, a brief description of the selected item is displayed on the bottom left of the window. To open a Control Panel item, double-click on it or press the Alt+O keys after selecting it.

- Accessing Control Panel with the Terminal Connection Manager

 1. Press the [⏎/SOURCE] button on the bottom of the front of the monitor to switch to Client mode.
 2. To open Control Panel, click Configure or press [F2] key on the Terminal Connection Manager.
 3. Continue to configure settings when the dialog below is displayed.





Internet Options

With Internet Options in Control Panel, you can change the settings for Internet Explorer using the Internet Options applet on Control Panel. You can specify the home page which is displayed when the browser starts and a web page for searching which is displayed when the Search button is pressed. You can also security level and whether to block popup windows or not. You can access this applet by clicking Tool menu -> Internet Options on Internet Explorer.



Printer

A thin client performs printing works of a RDP/ICA host PC at a local printer. You can configure and modify local printers using the Printer applet.
The Printer window shows the Add Printer icon and the icons of the printers configured previously. (If there is no printer configured, only the Add Printer icon is displayed.)
If you double-click the Add Printer icon or click the Open button, the Printer Wizard is displayed.

Select a port to use with printer, a printer manufacturer, and printer. If you set the added printer as the default printer, printing is performed with this printer unless you specify a different printer. If you double-click an existing printer icon or click the Open button, the Printer Properties window is displayed, which allows you to change the properties for the printer.

Terminal Host PC Client License

If you select an item in the list of saved licenses, its content is displayed on the window below. Click Delete]to delete the selected license. Click Save to save the selected license.

Volume and Sound

With Volume and Sound in Control Panel, you can open the Volume and Sound Properties window. You can select volume level and configure activation and deactivation of sound according to various events through the check boxes provided.

Date/Time

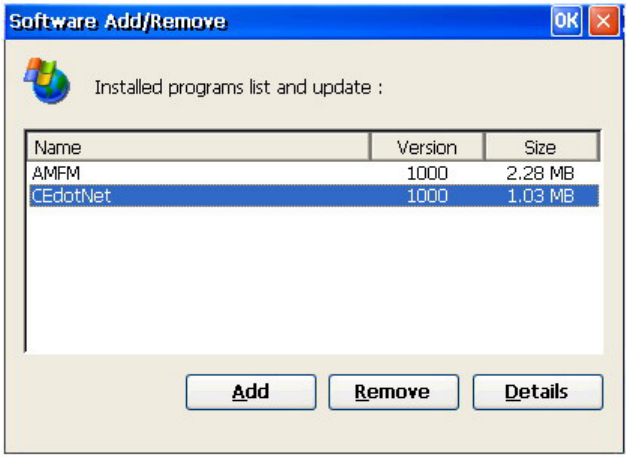
With Date/Time in Control Panel, you can configure date and time of the terminal using the Date/Time Properties window. Select a month using the arrow buttons and click a date. To change the AM/PM, hour, minutes, and seconds of the current time, click in each item and then enter a value directly or click the arrows buttons. In addition, if you want your terminal's clock to be adjusted automatically when daylight saving time changes, check the Automatically adjust clock for daylight saving changes check box.

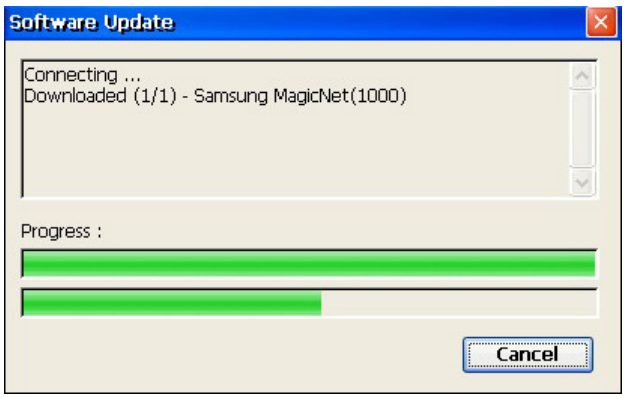
Certificates

With Certificates in Control Panel, you can import, view or remove a certificate. A certificate can be imported from a file or smart card. If your terminal does not provides a smart card reader, the smart card item is displayed deactivated when you click Import. If you click Remove with a certificate selected, it will be deleted immediately without displaying any confirmation message. If you want to save a deleted certificate again, click Control Panel -> System and check the Reset the terminal to factory default settings checkbox.

Software Setup

With Software Setup in Control Panel, you can update modules. Click Add and enter the IP address of the host PC that contains update files. Your monitor will connect to the host PC, download update files and update modules. Update progressions are displayed on message boxes or on the status bar. When the updates finishes, click Close and restart your terminal. When restarted, open the Software Setup window and you can identify the name, version, and size of installed programs.





Network

With Network in Control Panel, you can view the list of adapters installed in the terminal. To change the properties of an adapter, click Properties after selecting it. You can change IP address and host PC's name.

System

The Terminal Information tab shows manufacturer, product information, OS version, and memory information, etc. You can also reset the terminal to factory defaults.

Networking Tools

With Networking Tools in Control Panel, you can view IP properties and check your network's state using Ping and Trace Route. The IP Properties tab shows the IP address, subnet mask, gateway, DNS host PC, and WINS host PC for the selected adapter. If your terminal gets its IP address from DHCP server, the Refresh and Release buttons are activated. Click Release to release the currently allocated IP address and click Refresh to update IP address.

With the [Ping] tab, you can enter an host address (IP address or DNS name) and click Ping to execute the ping command. Ping command ping sends ICMP echo request to the host and wait response. If the host is working, it sends a response. In addition, ping measures and shows the time required from going to the host to returning to the client. Ping is used as a tool to detect whether the network has a problem or not.

With the Trace Route tab, you can execute tracert command by entering a host address (IP address or DNS name) and clicking Trace. tracert traces the path that a packet travels from the thin client to the host and shows the information on each router a packet passes. In addition, it also lets you know the time required from going to each router to returning to the client using ICMP echo request/reply. By analyzing this information, you can find a network that has a problem on the Internet path.

SNTP Client

With SNTP (Simple Network Time Protocol) in Control Panel, you can get a standard time from an SNTP host PC and synchronize your terminal's time with it. Your terminal provides a list of several SNTP PCs by default. You can also add/remove a host from the SNTP host list. To synchronize time, select an SNTP host PC and click Synchronize. Then, the terminal will connect to the specified host PC, get standard time and change your terminal's system time with it. You can identify progressions on the message windows displayed. If you want to synchronize your terminal's time to standard time whenever it boots up, check the Synchronize at boot-up check box.

VNC Host PC

With VNC Host PC in Control Panel, you can allow your thin client to be controlled remotely from a host that has a VNC client. Open the VNC Host PC applet, and determine whether to ask the password whenever a VNC client connects to your terminal. If you check the 'No authentication used' check box, all hosts that have a VNC client program can connect to your terminal. If you check the VNC password authentication check box and set a password, only the host that provides the correct password can access to your terminal. If you want an VNC host PC to executed at every boot-up, check the Start at boot-up check box.

Display

With Display in Control Panel, you can specify color settings, screen resolution, and screensaver option. For screen resolution and color settings, only the values applicable to your terminal are displayed. For screensaver option, you can select one of three options, (None), Floating image, Turn off monitor. If you select (None), no screensaver operates. If you select either Floating image or Turn off monitor, a screensaver starts automatically if there is no user input for the

specified waiting time. You need to restart your terminal to apply Display setting changes.

ICA Client Setup

If you double-click ICA Client Setup, the Global ICA Client Settings window is displayed.

With the Keyboard Shortcuts tab, you can configure shortcut keys. Some shortcut keys are used to control operations of the ICA Connection window, and the remaining are normal Windows shortcuts. If you want to change the default key assignments, select a key from the combo box.

With the Preferences tab, you can configure update functionality settings. These settings are used when you update your terminal modules manually using a Terminal Manger program instead using Auto Update.

With the Server Location tab, you can view a list of IPC host PCs that exists on your network.

The Firewall Settings tab is used to configure a SOCKS (Socket Secure) firewall. SOCKS is a protocol that configures the proxy host PC which exists between thin client and host PC. The proxy host PC is used as a channel that mediates communication between thin client and host PC.

Keyboard & Mouse

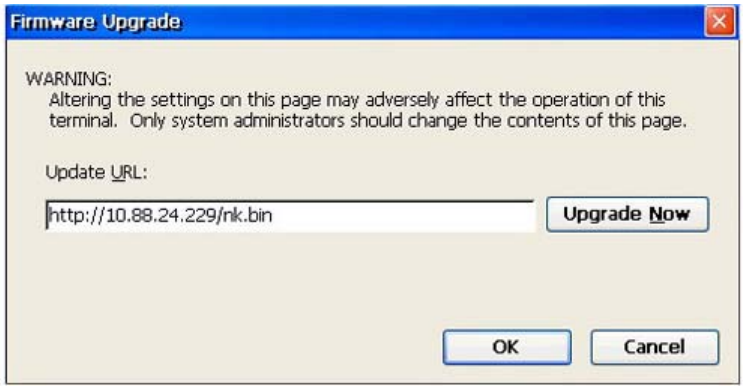
With Keyboard & Mouse in Control Panel, you can configure your terminal's keyboard and mouse properties.

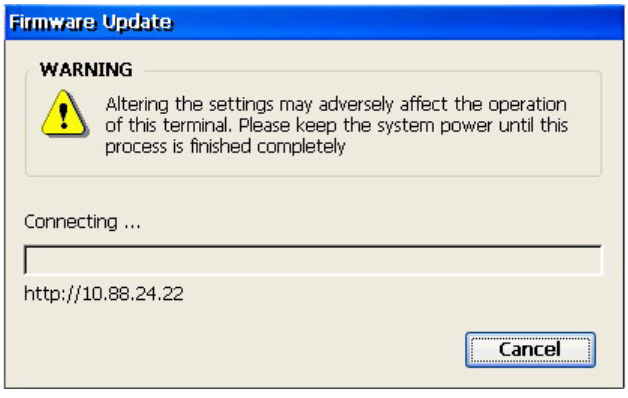
With the Keyboard tab, you can configure how much time elapses before characters repeat and how quickly characters repeat when you hold down a key. You can also specify whether to activate Num Lock, Caps Lock, and Scroll Lock keys at boot-up.

With the Mouse tab, you can change mouse button configuration to either Right-handed or Left-handed configuration, and adjust the speed of your mouse pointer that the pointer responds to the movements of the mouse itself.

Upgrade

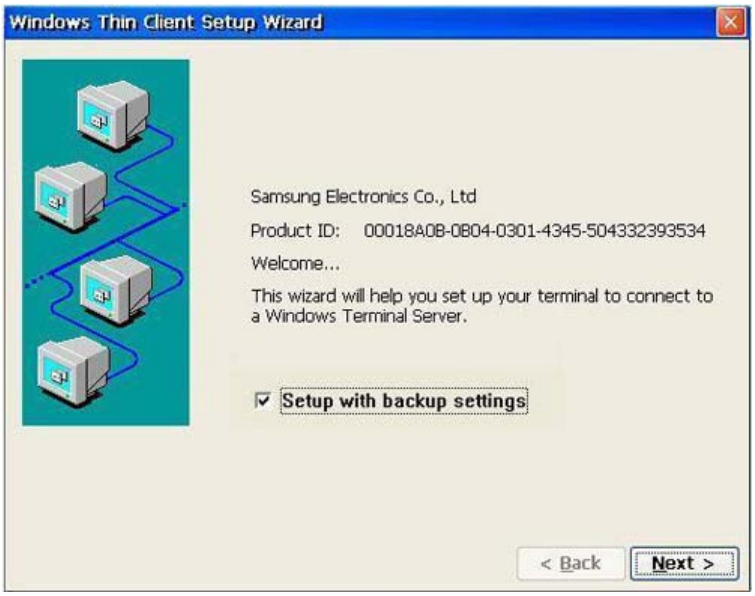
Using the Upgrade item in the Control Panel, you can upgrade your terminal's firmware.
By entering the URL of a host PC that provides the upgrade files and clicking on Update Now, your terminal tries to connect to the host PC. If the connection is successful, it downloads and installs the relevant files. You can cancel the upgrade while downloading files, but you cannot cancel while the installation is in progress. Forcefully shutting down the terminal during the installation can cause a serious problem.





When the firmware update finishes, your terminal restarts and the Setup Wizard is displayed. When selecting the 'Reset the system using the saved configuration file' option and clicking

Next, all system settings are saved with the existing values and your terminal is restarted. If you want to configure your terminal with fresh new settings, unselect the ‘Reset the system using the save configuration file’ option and click on Next. The next steps are the same as the steps when setting up your terminal for the first time.





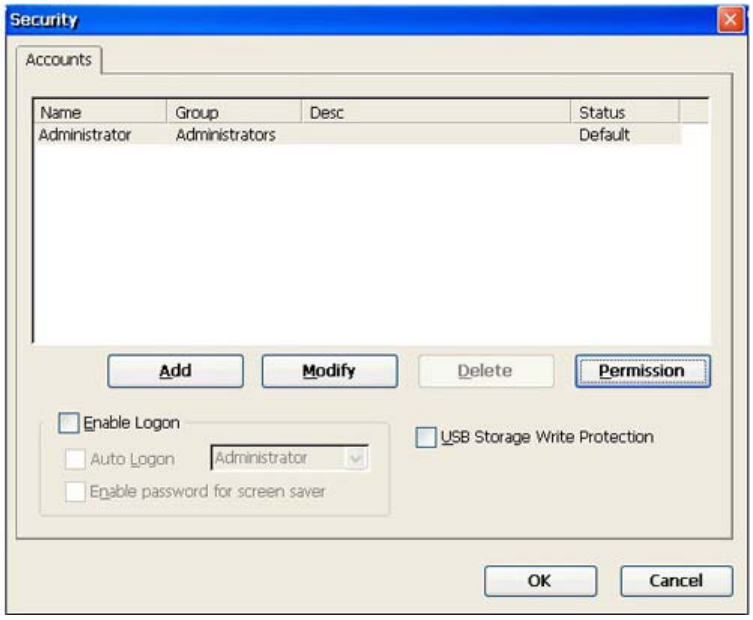
Desktop

The thin client provides a Desktop Shell and a Thin Client Shell.
When selecting a shell and restarting your terminal, it boots up into the selected shell.

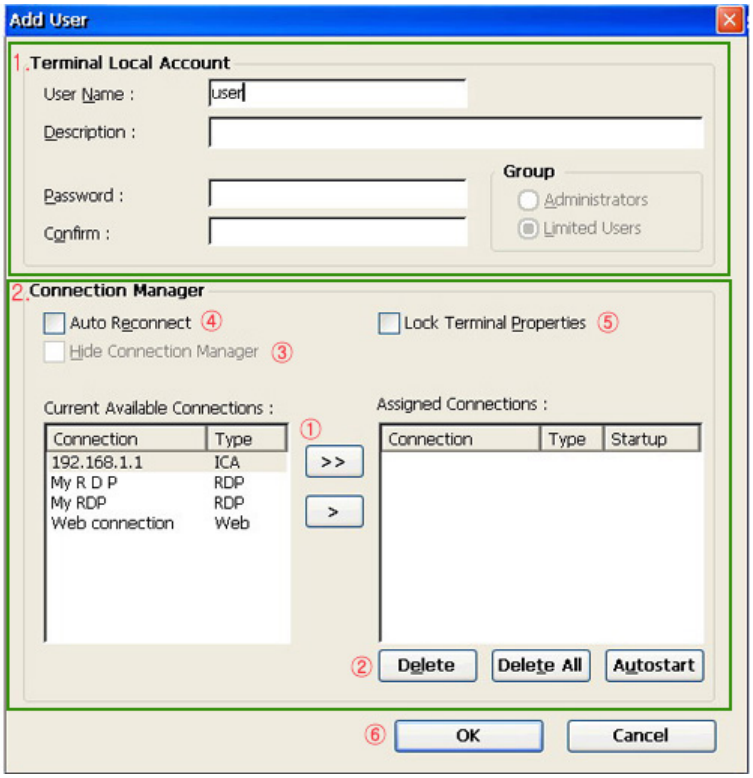


Security

The Security applet provides various security-related functionalities. The window as shown below is open when you double-click the Security icon.
All user accounts are listed with sorted.

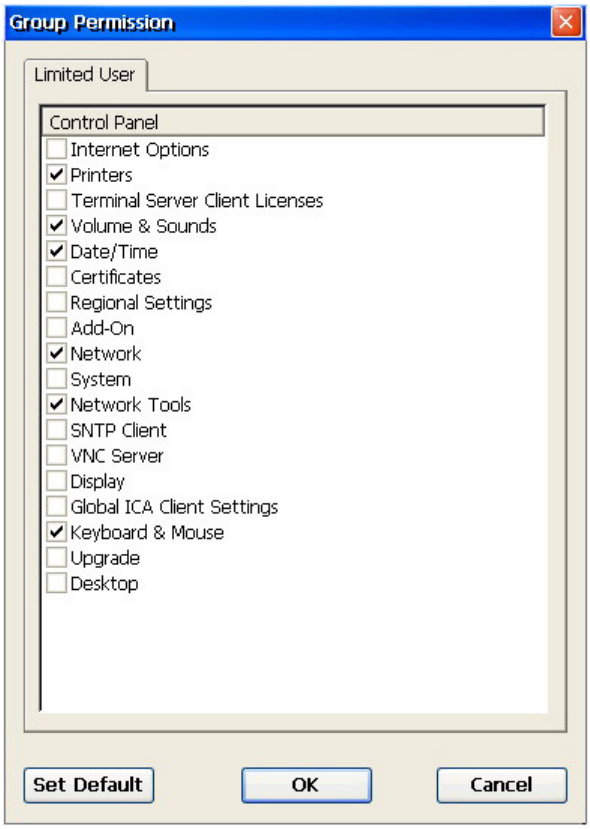


- Each item contains name, group, description, and status info (Default, Auto Start).
 If you click Add or Modify, the window as shown below is displayed.



1. You can enter basic information using the Terminal Local Account group. The user name is the required item to create a new account.
 (You cannot use symbolic characters and you can use up to 20 characters. If you want to set a password for an account, set a password within 20 characters long and make sure to confirm your password.)
2. You can allocate connections and configure options using the Connection Manager group.
 - ① To allocate a connection to your terminal, select the connection you want to use from the available connections list and click the [>] button or double-click the connection. Use the [>>] button to allocate all available connections to your terminal.
 - ② Use the Remove and Remove All buttons to cancel an allocation. The Auto Start button changes the state of the selected allocated connection to 'Auto Start' or 'Default' (toggling).
 - ③ If you set an allocated connection to Auto Start, the Hide Connection Manager check box is activated. If you check this check box, when the Thin Client Shell logs on to the server with the specified account, the connection whose state you set to Auto Start is executed instead the Connection Manager being displayed.
 - ④ If you want to reconnect automatically when a connection fails or finishes, check the Auto Restart check box. However, this check box cannot be checked with the Hide Connection Manager check box at the same time.
 - ⑤ Check the Lock terminal properties check box if you want to open terminal properties only if password authentication is passed successfully,
 - ⑥ Click OK to add or modify the account. If you want to delete an account, use the Remove button on the Security dialog.

- If you click Privileges on the Security dialog, the window as shown below is displayed. You can specify Control Panel items a limited user account can use. When logged in as a limited user account, only the specified items are displayed in Control Panel.



If you want to apply the login functionality in order to allow access for allowed users only, check the Use login function check box. If you do not check this check box, the selected account is the same with the administrator account. If you check the Use login function check box, the Auto Login and the Set screensaver password check boxes are activated. If you check the Auto Login check box and select an account, you are logged in automatically with the specified account unless you click Cancel and login to the server with a different account at a login time. If the Set screensaver password is checked, a window to enter the password is prompted to authenticate the user when the screensaver finishes.

① The Logon window is displayed when a user turns on or restarts a client terminal, or another user is logged out.
② If the **Auto Login** option is selected, the Auto Login window is displayed. Unless you click **Cancel** within five (5) seconds and login to the host PC with a different account, you will be logged on to the host PC automatically with the specified account.
③ With the **Shut down** button, you can shut down or restart your terminal, or log out from the host PC you are logged on to. The Log Out item is only displayed if 'the **User login function** option is selected.

- If you don't want the user to write on USB memory when connected to RDP or ICA, check the Write-protect on USB memory check box.

※ However, for Windows 2000 Server OS, only low color (256 colors) is supported.

Notice to Users

1) Use a PC with Windows 2000 Server/ 2003 Server OS as a host PC.

- Two users cannot connect to Windows XP Home/Professional PC at the same time.

2) When a USB mouse is not recognized, separate and reconnect the USB mouse. The mouse will be recognized.

3) Separating peripheral devices while booting up the Client may cause an error. Before separating peripheral devices, make sure the power is off.

4) The automatic rotation function is only available when the monitor is directly connected to a PC.

Client monitor does not support the automatic rotation function.

5) Restrictions of the Windows 2000 Server Operating System

- Only Low Color (256 colors) screen quality is supported.
- You cannot find the USB device connected to the monitor from the host PC.



Monitor Driver

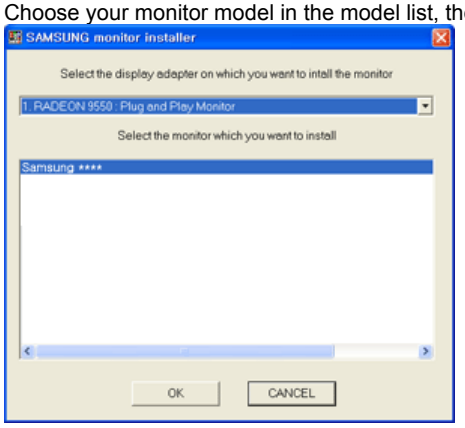
When prompted by the operating system for the monitor driver, insert the CD-ROM included with this monitor. Driver installation is slightly different from one operating system to another. Follow the directions appropriate for the operating system you have.

Prepare a blank disk and download the driver program file at the Internet web site shown below.

Internet web site :http://www.samsung.com/ (Worldwide)
http://www.samsung.com/monitor (U.S.A)
http://www.sec.co.kr/monitor (Korea)
http://www.samsungmonitor.com.cn/ (China)

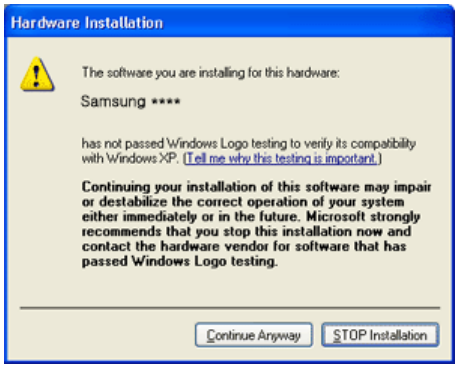
Installing the Monitor Driver (Automatic)

1. Insert the CD into the CD-ROM drive.
2. Click **"Windows"**.
3. Choose your monitor model in the model list, then click the "OK" button.



4.

If you can see following message window, then click the "Continue Anyway" button. Then click the "OK" button (Microsoft® Windows® XP/2000 Operating System).



※ This monitor driver is under certifying MS logo, and this installation doesn't damage your system.
The certified driver will be posted on Samsung Monitor homepage

http://www.samsung.com/

❺ Monitor driver installation is completed.

Installing the Monitor Driver (Manual)

Windows Vista | Windows XP | Windows 2000 | Windows ME | Windows NT | Linux

Microsoft® Windows Vista™ Operating System

❶ Insert your Manual CD into your CD-ROM drive.
❷ Click (Start) and "Control Panel". Then, double-click on "Appearance and Personalization".




❸ Click "Personalization" and then "Display Settings".

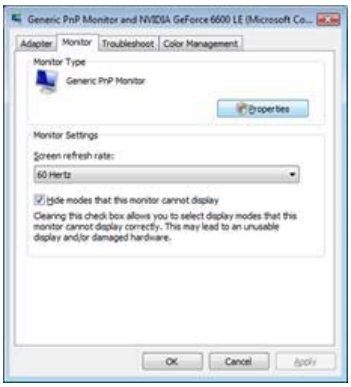



❹

Click "Advanced Settings…".



5 Click "Properties" in the "Monitor" tab. If the "Properties" button is deactivated, it means the configuration for your monitor is completed. The monitor can be used as is.
If the message “Windows needs…” is displayed, as shown in the figure below, click "Continue".

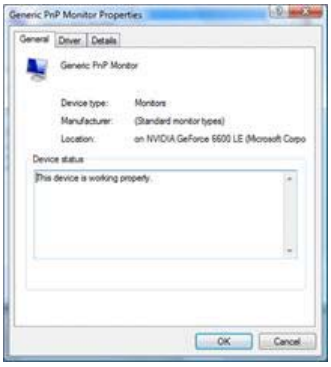




※ This monitor driver is under certifying MS logo, and this installation doesn't damage your system.
The certified driver will be posted on Samsung Monitor homepage

http://www.samsung.com/

6 Click "Update Driver…" in the "Driver" tab.



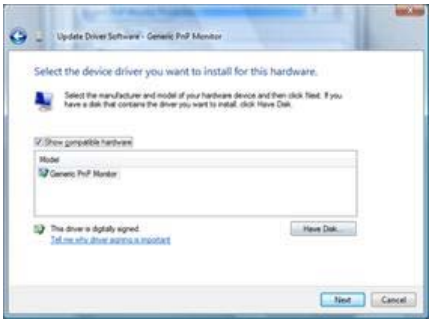


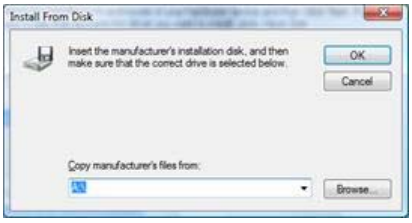
7 Check the "Browse my computer for driver software" checkbox and click "Let me pick from a list of device drivers on my computer".



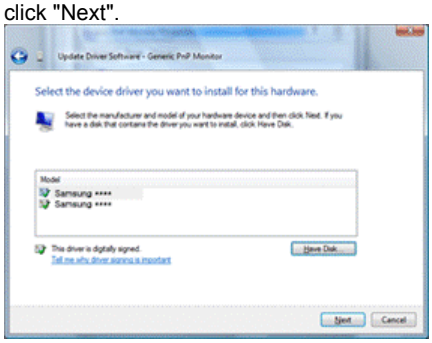


8 Click "Have Disk…" and select the folder (for example, D:\Drive) where the driver setup file is located, and click "OK".

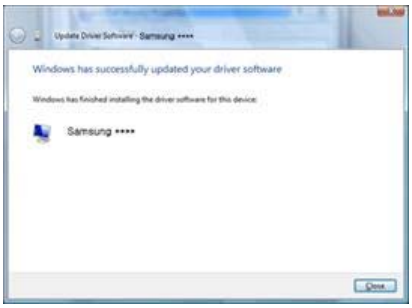


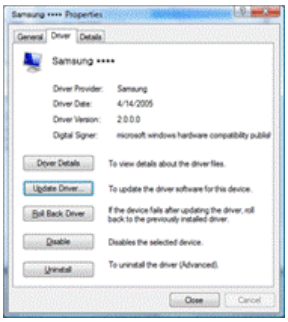


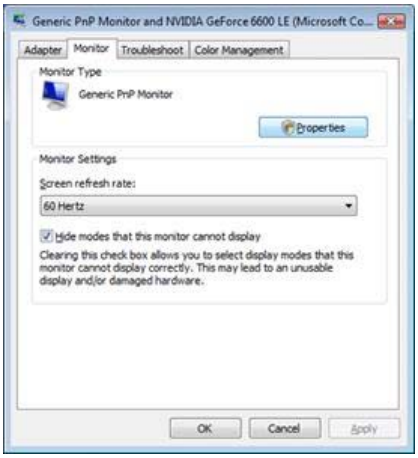
9 Select the model that matches your monitor from the list of monitor models on the screen, and click "Next".

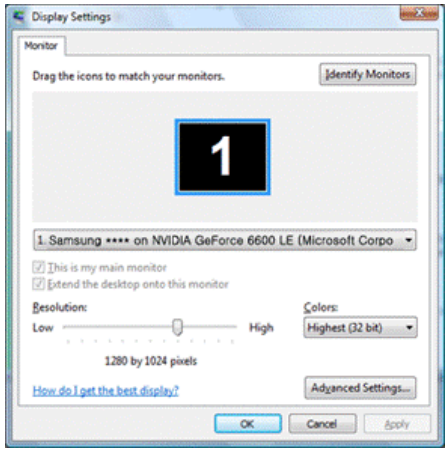


10 Click "Close"→ "Close" → "OK" → "OK" on the following screens displayed in sequence.









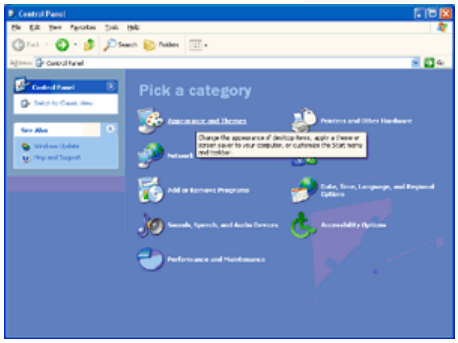
Microsoft® Windows® XP Operating System

1 Insert the CD into the CD-ROM drive.

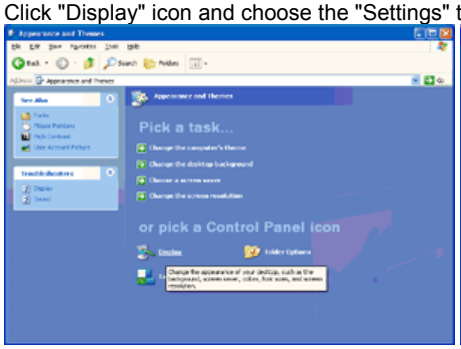
2

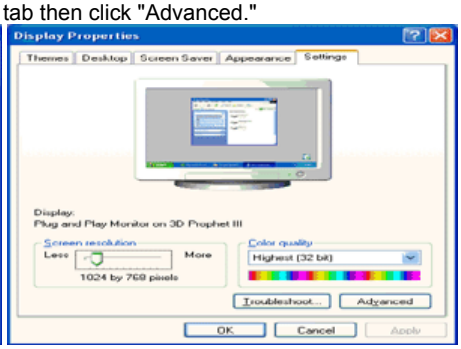
Click "Start" → "Control Panel" then click the "Appearance and Themes" icon.



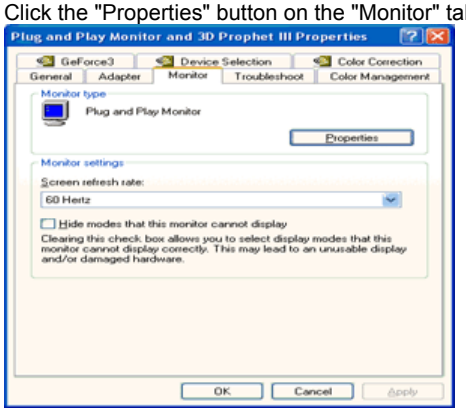


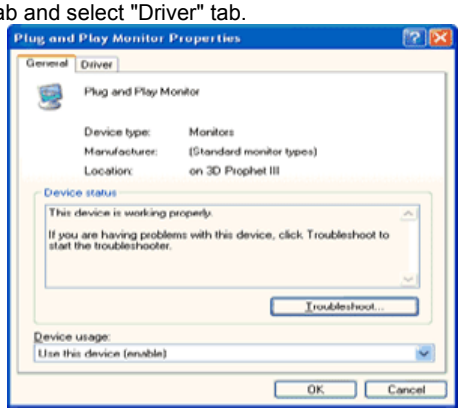
❸ Click "Display" icon and choose the "Settings" tab then click "Advanced."



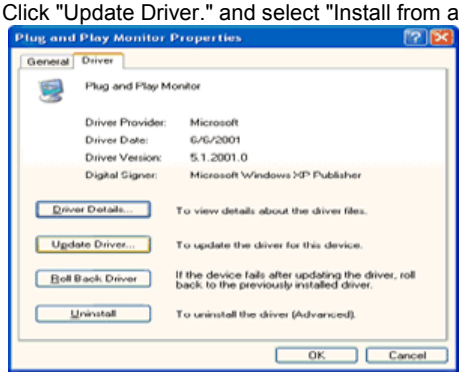


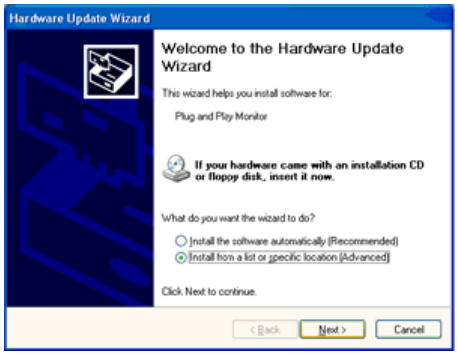
❹ Click the "Properties" button on the "Monitor" tab and select "Driver" tab.





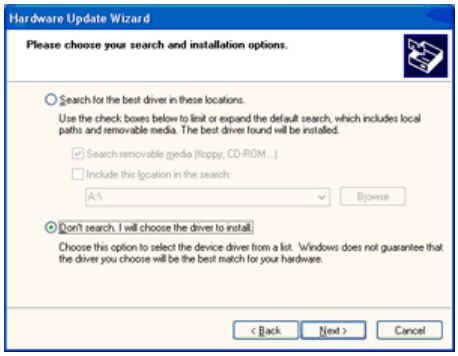
❺ Click "Update Driver." and select "Install from a list or." then click the "Next" button.

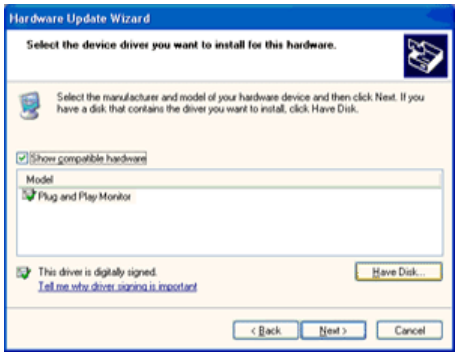




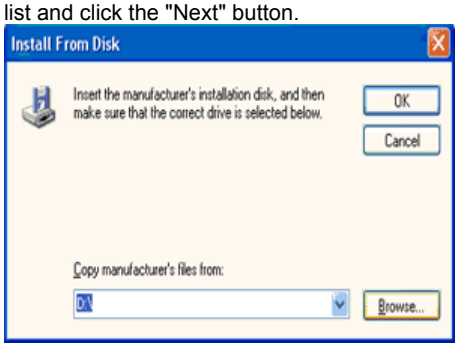
❻

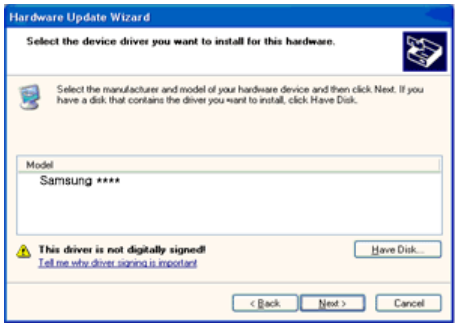
Select "Don't search ,I will." then click "Next" and then click "Have disk".



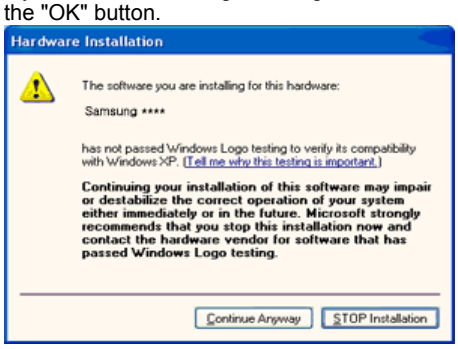


❼ Click the "Browse" button then choose A:(D:\Driver) and choose your monitor model in the model list and click the "Next" button.





❽ If you can see following "Message" window, then click the "Continue Anyway" button. Then click the "OK" button.

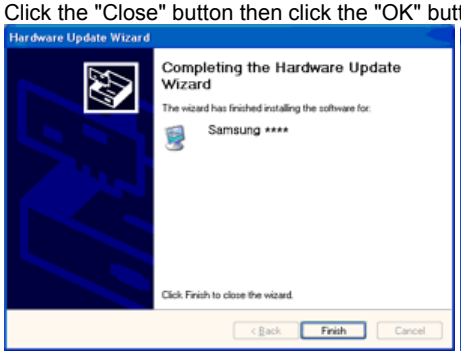


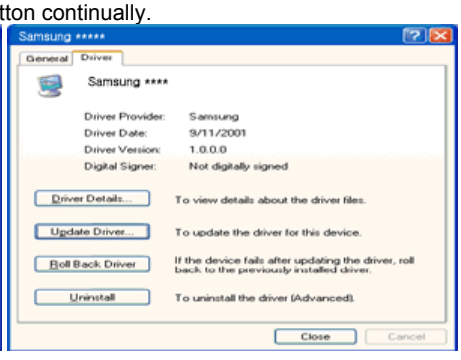
※ This monitor driver is under certifying MS logo, and this installation doesn't damage your system.
The certified driver will be posted on Samsung Monitor homepage

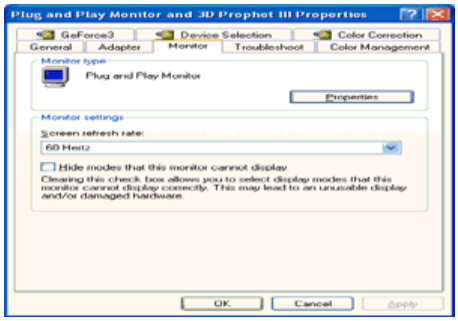
http://www.samsung.com/

❾

Click the "Close" button then click the "OK" button continually.







⑩ Monitor driver installation is completed.

Microsoft® Windows® 2000 Operating System

When you can see "Digital Signature Not Found" on your monitor, follow these steps.

① Choose the "OK" button on the "Insert disk" window.
② Click the "Browse" button on the "File Needed" window.
③ Choose A:(D:\Driver) then click the "Open" button and then click the "OK" button.

How to install

① Click "Start," "Setting," and then "Control Panel."
② Double click the "Display" icon.
③ Select the "Settings" tab and click the "Advanced Properties" button.
④ Choose "Monitor."
Case1 : If the "Properties" button is inactive, it means your monitor is properly configured. Please stop installation
Case2 : If the "Properties" button is active, click the "Properties" button then follow next steps continually.
⑤ Click "Driver" and then click "Update Driver." then click the "Next" button.
⑥ Choose "Display a list of the known drivers for this device so that I can choose a specific driver" then click "Next" and then click "Have disk".
⑦ Click the "Browse" button then choose A:(D:\Driver).
⑧ Click the "Open" button, then click the "OK" button.
⑨ Choose your monitor model and click the "Next" button then click "Next" button.
⑩ Click the "Finish" button then the "Close" button.

If you can see the "Digital Signature Not Found" window then click the "Yes" button. And click the "Finish" button then the "Close" button.

Microsoft® Windows® Millennium Operating System

① Click "Start," "Setting," and then "Control Panel."
② Double click the "Display" icon.
③ Select the "Settings" tab and click the "Advanced Properties" button.
④ Select the "Monitor" tab.
⑤ Click the "Change" button in the "Monitor Type" area.
⑥ Choose "Specify the location of the driver."
⑦ Choose "Display a list of all the driver in a specific location." then click the "Next" button.
⑧ Click the "Have Disk" button.
⑨ Specify A:\(D:\driver) then click the "OK" button.
⑩ Select "Show all devices" and choose the monitor that corresponds to the one you connected to your computer and click "OK".
⑪ Continue choosing "Close" button and "OK" button until you close the Display Properties dialogue box.

Microsoft® Windows® NT Operating System

①

Click "Start," "Settings," "Control Panel," and then double-click "Display" icon.

2. In the Display Registration Information window, click the Settings tab and then click "All Display Modes".
3. Select a mode that you wish to use (Resolution, Number of colors and Vertical frequency) and then click "OK".
4. Click the "Apply" button if you see the screen working normally after clicking "Test". If the screen is not normal, change to a different mode (lower mode of resolution, colors, or frequency).

※ If there is no Mode at All Display Modes, select the level of resolution and vertical frequency by referring to the Preset Timing Modes in the user guide.

Linux Operating System

To execute X-Window, you need to make the X86Config file, which is a type of system setting file.

1. Press "Enter" at the first and the second screen after executing the X86Config file.
2. The third screen is for setting your mouse.
3. Set a mouse for your computer.
4. The next screen is for selecting a keyboard.
5. Set a Keyboard for your computer.
6. The next screen is for setting your monitor.
7. First of all, set a horizontal frequency for your monitor. (You can enter the frequency directly.)
8. Set a vertical frequency for your monitor. (You can enter the frequency directly.)
9. "Enter" the model name of your monitor. This information will not affect the actual execution of X-Window.
10. You have finished setting up your monitor.
Execute X-Window after setting other requested hardware.

Natural Color

Natural Color



One of the recent problems in using a computer is that the color of the images printed out by a printer or other images scanned by a scanner or a digital camera are not the same as those shown on the monitor.
the Natural Color S/W is the very solution for this problem. It is a color administration system developed by Samsung Electronics in association with Korea Electronics & Telecommunications Research Institute (ETRI).
This is only available for Samsung monitors and ensures that the color of the images on the monitor are the same as the printed or scanned images.
For more information, refer to Help (F1) in the software program.

Installing the Natural Color Software

Insert the CD included with the Samsung monitor into the CD-ROM Drive. The initial Natural Color screen will appear. Click on Natural Color in the startup window to install the Natural Color software.
To install the program manually, insert the CD included with the Samsung monitor into the CD-ROM Drive, click the Windows **[Start]** button, select **[Run...]** .
Enter D:\Color\NCProSetup.exe and then press the <Enter> key.
(If the drive where the CD is inserted is not D:\, enter the applicable drive.)

Uninstalling the Natural Color Software Program

Select **"Settings" / "Control Panel"** from the **"Start"** menu and then double-click **"Add/Delete a program"**
Select Natural Color from the list and then click the "Add/Delete" button.

MagicTune™

Installation

1. Insert the installation CD into the CD-ROM drive.
2. Click the MagicTune™ installation file.
3. Select installation Language, Click "Next".
4. When the Installation Shield Wizard window appears, click "Next."
5. Select "I agree to the terms of the license agreement" to accept the terms of use.
6. Choose a folder to install the MagicTune™ program.
7. Click "Install."
8. The "Installation Status" window appears.
9. Click "Finish."
10. When the installation is complete, the MagicTune™ executable icon appears on your desktop.

Double-click the icon to start the program.

MagicTune™ execution icon may not appear depending on specification of computer system or monitor.
If that happens, press F5 Key.

Installation Problems (MagicTune™)

The installation of MagicTune™ can be affected by such factors as the video card, motherboard and the network environment.

System Requirements

OS

- Windows 2000
- Windows XP Home Edition
- Windows XP Professional
- Windows Vista™

It is recommended using MagicTune™ in Windows® 2000 or later.

Hardware

- 32MB Memory above
- 60MB Hard disk space above

* For more information, visit the MagicTune™ website.

Uninstall

The MagicTune™ program can be removed only by using the "Add or Remove Programs" option of the Windows® Control Panel.

Perform the following steps remove MagicTune™.

1. Go to [Task Tray] ' [Start] ' [Settings] and select [Control Panel] in the menu. If the program runs on Windows® XP, go to [Control Panel] in the [Start] menu.
2. Click the "Add or Remove Programs" icon in Control Panel.
3. In the "Add or Remove Programs" screen, scroll down to find "MagicTune™". Click on it to highlight it.
4. Click the "Change/Remove" button to remove the program.
5. Click "Yes" to begin the uninstall process.
6. Wait until the "Uninstall Complete" dialog box appears.

Visit the MagicTune™ website for technical support for MagicTune™, FAQs (questions and answers) and software upgrades.



Control Buttons



1. [MENU /] Opens the OSD menu. Also use to exit the OSD menu or return to the previous menu.
2. [▼/▲] These buttons allow you to adjust items in the menu.
3. [] Press this button to Activates a highlighted menu item.
4. [AUTO] When the 'AUTO' button is pressed, the Auto Adjustment screen appears as shown in the animated screen on the center.

Direct Functions

AUTO



Menu	Description
AUTO	When the 'AUTO' button is pressed, the Auto Adjustment screen appears as shown in the animated screen on the center. The values of fine, coarse and position are adjusted automatically. To make the automatic adjustment function sharper, execute the 'AUTO' function while the AUTO PATTERN is on. ※ Available in analog Mode Only

- If auto adjustment does not work properly, press 'AUTO' button again to adjust picture with more accuracy.
- If you change resolution in the control panel, auto function will be executed automatically.

OSD Lock & Unlock

- In case of pushing AUTO button after locking OSD



In case of pushing MENU button after locking OSD



Menu	Description
OSD Lock & Unlock	This is the function that locks the OSD in order to keep the current states of settings or prevent others from adjusting the current settings. **Lock** : Hold down the menu button for more than five (5) seconds to activate the OSD adjustment lock function. **Unlock** : Hold down the menu button for more than five (5) seconds to deactivate the OSD adjustment lock function. ※ Though the OSD adjustment lock function is activated, you can still adjust the brightness and contrast, and adjust MagicBright () using the Direct button.

MagicBright™



Menu	Description
MagicBright™	Push the MagicBright™ button to circle through available preconfigured modes. - Six different modes (Custom/Text/Internet/Game/Sport/Movie)

Volume



Menu	Description

	Volume	When OSD is not on the screen, push [▲/] the button to adjust volume.

SOURCE



Menu	Description
SOURCE	Selects the Video signal while the OSD is off. (Analog/Client)

OSD Function

Picture	Brightness	Contrast			
Color	MagicColor	Color Tone	Color Control	Gamma	
Image	Coarse	Fine	Sharpness	H-Position	V-Position
OSD	Language	H-Position	V-Position	Transparency	Display Time
Setup	Image Reset	Color Reset			
Information					

Picture



Menu	Description	Play/Stop
Brightness	You can use the on-screen menus to change the brightness according to personal preference. MENU → ↵ → ↵ → ▲, ▼ → MENU	
Contrast	You can use the on-screen menus to change the contrast according to personal preference. (Not available in MagicColor mode of Full and Intelligent.) MENU → ↵ → ▲, ▼ → ↵ → ▲, ▼ → MENU	

Color



Menu	Description	Play/Stop
MagicColor	MagicColor is a new technology that Samsung has exclusively developed to improve digital image and to display natural color more clearly without disturbing image quality.	
	❶ Off — Returns to the original mode. ❷ Demo — The screen before applying MagicColor appears on the right and the screen after applying MagicColor appears on the left. ❸ Full — Displays not only vivid natural color but also more realistic natural skin color with clearness. ❹ Intelligent — Displays vivid natural color with clearness. ❺ MagicZone — The MagicZone ensures the clear and sharp display of animated multimedia or photo images by enhancing the brightness, sharpness, saturation, hue of a certain area on the screen. Especially, MagicZone is appropriate to using the moving picture.	 MagicZone 
	▸ Hue — This function is to adjust the hue of the MagicZone.	Hue 
	▸ Saturation — This function is to adjust the saturation of the MagicZone.	Saturation 
	▸ Brightness — This function is to adjust the brightness of the MagicZone.	Brightness 
	▸ Sharpness — This function is to adjust the sharpness of the MagicZone.	Sharpness 
	▸ H-Position — This function is to move the MagicZone horizontally.	H-Position 
	▸ V-Position — This function is to move the MagicZone vertically.	V-Position 
	▸ H-Size — This function is to adjust the horizontal size of the MagicZone.	H-Size 
	▸ V-Size — This function is to adjust the vertical size of the MagicZone.	V-Size 
Color Tone	The tone of the color can be changed and one of four modes can be selected -Cool, Normal, Warm and Custom. (Not available in MagicColor mode of Full and Intelligent.) MENU → ▲, ▼ → ↵ → ▲, ▼ → ↵ → ▲, ▼ → MENU	
Color Control	Adjusts individual Red, Green, Blue color balance. - Red, Green, Blue (Not available in MagicColor mode of Full and Intelligent.) MENU → ▲, ▼ → ↵ → ▲, ▼ → ↵ → ▲, ▼ → ↵ → ▲, ▼ → MENU	
Gamma	Gamma correction changes the luminance of the colors with intermediate luminance. - Mode 1 - Mode 2 - Mode 3 MENU → ▲, ▼ → ↵ → ▲, ▼ → ↵ → ▲, ▼ → MENU	



Menu	Description	Play/Stop
Coarse	Removes noise such as vertical stripes. Coarse adjustment may move the screen image area. You may relocate it to the center using the horizontal control menu. ※ Available in analog Mode Only MENU → ▲, ▼ → ↵ → ↵ → ▲, ▼ → MENU	
Fine	Removes noise such as horizontal stripes. If the noise persists even after fine tuning, repeat it after adjusting the frequency (clock speed). ※ Available in analog Mode Only MENU → ▲, ▼ → ↵ → ▲, ▼ → ↵ → ▲, ▼ → MENU	
Sharpness	Changes the clearance of image. (Not available in MagicColor mode of Full and Intelligent.) MENU → ▲, ▼ → ↵ → ▲, ▼ → ↵ → ▲, ▼ → MENU	
H-Position	Changes the horizontal position of the monitor's entire display. ※ Available in analog Mode Only MENU → ▲, ▼ → ↵ → ▲, ▼ → ↵ → ▲, ▼ → MENU	
V-Position	Changes the vertical position of the monitor's entire display. ※ Available in analog Mode Only MENU → ▲, ▼ → ↵ → ▲, ▼ → ↵ → ▲, ▼ → MENU	

OSD



Menu	Description	Play/Stop
Language	You can choose one of the nine languages. • English, Deutsch, Español, Français, Italiano, Svenska, Русский , Português , Türkçe ※ The language chosen affects only the language of the OSD. It has no effect on any software running on the computer. MENU → ▲ , ▼ → ↵ → ↵ → ▲ , ▼ → MENU	
H-Position	You can change the horizontal position where the OSD menu appears on your monitor. MENU → ▲ , ▼ → ↵ → ▲ , ▼ → ↵ → ▲ , ▼ → MENU	
V-Position	You can change the vertical position where the OSD menu appears on your monitor. MENU → ▲ , ▼ → ↵ → ▲ , ▼ → ↵ → ▲ , ▼ → MENU	
Transparency	Change the transparency of the background of the OSD. MENU → ▲ , ▼ → ↵ → ▲ , ▼ → ↵ → ▲ , ▼ → MENU	
Display Time	The menu will be automatically turned off if no adjustments are made for a certain time period. You can set the amount of time the menu will wait before it is turned off. - 5 Sec, 10 Sec, 20 Sec, 200 Sec MENU → ▲ , ▼ → ↵ → ▲ , ▼ → ↵ → ▲ , ▼ → MENU	

Setup



Menu	Description	Play/Stop
Image Reset	Image parameters are replaced with the factory default values. MENU → ▲, ▼ → ↵ → ↵ → ▲, ▼ → MENU	
Color Reset	Color parameters are replaced with the factory default values. MENU → ▲, ▼ → ↵ → ▲, ▼ → ↵ → ▲, ▼ → MENU	

Information



Menu	Description
Information	Shows a video source, display mode on the OSD screen. MENU → ▲, ▼



Check List

Before calling for service, check the information in this section to see if you can remedy any problems yourself. If you do need assistance, please call the phone number on the Information section or contact your dealer.

Symptom	Check List	Solutions
No images on the screen. I cannot turn on the monitor.	Is the power cord connected properly?	Check the power cord connection and supply.
	Can you see "Check Signal Cable" on the screen?	Check the signal cable connection.
	If the power is on, reboot the computer to see the initial screen(the login screen), which can be seen.	If the initial screen (the login screen) appears, boot the computer in the applicable mode (the safe mode for Windows ME/XP/2000) and then change the frequency of the video card. (Refer to the Preset Timing Modes) If the initial screen (the login screen) does not appear, contact the Service Center or your dealer.
	Can you see "Not Optimum Mode", "Recommended Mode 1280 x 1024 60 Hz" on the screen?	You can see this message when the signal from the video card exceeds the maximum resolution and frequency that the monitor can handle properly. Adjust the maximum resolution and frequency that the monitor can handle properly. If the display exceeds SXGA or 75 Hz, a "Not Optimum Mode", "Recommended Mode 1280 x 1024 60 Hz" message is displayed. If the display exceeds 85 Hz, the display will work properly but the "Not Optimum Mode", "Recommended Mode 1280 x 1024 60 Hz" message appears for one minute and then disappears. Please change to the recommended mode during this one-minute period. (The message is displayed again if the system is rebooted.)
	There is no image	The monitor is in PowerSaver mode.

	on the screen. Is the power indicator on the monitor blinking at 1 second intervals?	Press a key on the keyboard to activate the monitor and restore the image on the screen. If there is still no image, press the 'SOURCE' button. Then press any key on the keyboard again to activate the monitor and restore the image on the screen.
I cannot see the On Screen Display.	Have you locked the On Screen Display (OSD) Menu to prevent changes?	Unlock the OSD by pressing the [MENU /] button for at least 5 seconds.
The screen shows strange colors or just black and white.	Is the screen displaying only one color as if looking at the screen through a cellophane paper?	Check the signal cable connection. Make sure the video card is fully inserted in it's slot.
	Have the screen colors become strange after running a program or due to a crash between applications?	Reboot the computer.
	Has the video card been set properly?	Set the video card by referring to the video card manual.
The screen suddenly has become unbalanced.	Have you changed the video card or the driver?	Adjust screen image position and size using the OSD.
	Have you adjusted the resolution or frequency to the monitor?	Adjust the resolution and frequency at the video card. (Refer to the Preset Timing Modes).
	The screen can be unbalanced due to the cycle of the video card signals. Readjust Position by referring to the OSD.	
The screen is out of focus or OSD cannot be adjusted.	Have you adjusted the resolution or frequency on the monitor?	Adjust the resolution and frequency of the video card. (Refer to the Preset Timing Modes).
LED is blinking but no images on the screen.	Is the frequency properly adjusted when checking the Display Timing on the menu?	Adjust the frequency properly by referring to the video card manual and the Preset Timing Modes. (The maximum frequency per resolution may differ from product to product.)
There are only 16 colors shown on the screen. The screen colors have changed after changing the video card.	Have the Windows colors been set properly?	Windows XP : Set the resolution at the Control Panel → Appearance and Themes → Display → Settings. Windows ME/2000 : Set the resolution at the Control Panel → Display → Settings.
	Has the video card been set properly?	Set the video card by referring to the video card manual.
There is a message that reads "Unrecognized	Have you installed the monitor driver?	Install the monitor driver according to the Driver Installation Instructions.
	See the video card	Install the monitor driver according to the Driver

monitor, Plug & Play (VESA DDC) monitor found".	manual to see if the Plug & Play (VESA DDC) function can be supported.	Installation Instructions.
Problems related to Audio	No sound	Ensure that the audio cable is firmly connected to both the audio-in port on your monitor and the audio-out port on your sound card. (Refer to Connecting the Monitor) Check the volume level.
	Sound level is too low.	Check the volume level. If the volume is still too low after turning the control to its maximum, check the volume control on the computer sound card or software program.
Check when MagicTune™ does not function properly.	MagicTune™ feature is found only on PC (VGA) with Window OS that supports Plug and Play.	* To check whether your PC is available for MagicTune™ feature, follow the steps below (When Windows™ is XP); Control Panel → Performance and Maintenance → System → Hardware → Device Manager → Monitors → After deleting Plug and Play monitor, find 'Plug and Play monitor' by searching new Hardware. MagicTune™ is an additional software for the monitor. Some graphic cards may not support your monitor. When you have a problem with the graphic card, visit our website to check the compatible graphic card list provided. http://www.samsung.com/monitor/magictune
MagicTune™ doesn't work properly.	Have you changed your PC or video graphic card?	Download the latest program. The program can be downloaded http://www.samsung.com/monitor/magictune
	Did you install the program?	Reboot the computer after installing the program for the first time. If a copy of the program is already installed, remove it, reboot the computer, and then install the program again. You need to reboot the computer for it to operate normally after installing or removing the program.

※ Visit the MagicTune™ website and download the installation software for MagicTune™ MAC.

Check the following items if there is trouble with the monitor.

Symptom	Solutions
The screen does not appear when I switch to the Client Mode.	When booting up, it takes about 30 seconds for the networking functions to be activated and no screen is displayed for about 3 to 4 seconds. Wait 30 seconds after the power is turned on, and try to switch modes again. If the operating system does not boot up due to damage to Windows or a blue screen is displayed, download the Windows XPe OS from this site and recover your operating system with it : http://www.syncsight.com
The client screen appears, but I cannot connect to the server.	1) Check if the Hub port LED to which the LAN cable is connected blinks. If not, that indicates that the LAN connection is disconnected. In this case, connect using another LAN cable. 2) Check if the settings of the 'Settings', 'Network' tab are properly set up. The default setting is "DHCP". If your network uses a static IP address, select 'Use the following IP address' and then enter the appropriate IP address information. 3) Check if the 'User Name' and 'Password' set in the 'Remote Desktop' tab of 'Settings' are the same as those of the host PC. If not, match the 'User Name'

	and 'Password' of the 'Remote Desktop' with those of the host PC.
I cannot access the Internet in the Client screen.	1) Check if the Hub port LED to which the LAN cable is connected blinks. If not, that indicates that the LAN connection is disconnected. In this case, connect using another LAN cable. 2) Check if the settings of the 'Network' tab of 'Settings' have been properly set up. The default setting is "DHCP". If your network uses a static IP address, select 'Use the following IP address' and then enter the appropriate IP address information.
The contents (video, voice) on the server do not play smoothly on the Client Monitor.	This is because the data is transmitted over the LAN. Check your LAN connection status.
I have connected a digital device such as a digital camera, camcorder or USB memory to the USB port, but they do not work.	This model supports USB devices that support removable disk functions without an additional driver installation. Check if the device you want to connect to is a device that supports the removable disk function without an additional driver installation.
The file list does not appear.	1) Check the files on the card. If only abnormal files (e.g. 0KByte, broken JPEG) exist, the files do not appear on the screen. 2) The time required to display is determined by the size of the file. Wait a moment. 3) Check if the format of the file is supported by the Client Monitor. If the extension of the file has been changed, the file will not be played.

Check the following items if there is trouble with the monitor.

- Check if the power cord and the video cables are properly connected to the computer.
- Check if the computer beeps more than 3 times when booting.
 (If it does, request an a service for the main board of the computer.)
- If you installed a new video card or if you assembled the PC, check if the installed the adaptor(video) driver and the monitor driver.
- Check if the scanning ratio of the video screen is set at 56 Hz ~ 75 Hz.
 (Do not exceed 75 Hz when using the maximum resolution.)
- If you have problems in installing the adaptor (video) driver, boot the computer in Safe Mode, remove the Display adaptor at the "Control Panel → System → Device Administrator" and then reboot the computer to reinstall the adaptor (video) driver.

※ If problems repeatedly occur, contact an authorized service center.

Q & A

Question	Answer
How can I change the frequency?	Frequency can be changed by reconfiguring the video card. Note that video card support can vary, depending on the version of the driver used. (Refer to the computer or the video card manual for details.)

How can I adjust the resolution?	Windows XP : Set the resolution at the Control Panel → Appearance and Themes → Display → Settings. Windows ME/2000 : Set the resolution at the Control Panel → Display → Settings. ※ Contact the video card manufacturer for details.
How can I set the Power Saving function?	Windows XP : Set the resolution at the Control Panel → Appearance and Themes → Display → Screen Saver. Set the function at BIOS-SETUP of the computer. Windows ME/2000 : Set the resolution at the Control Panel → Display → Screen Saver. Set the function at BIOS-SETUP of the computer. ※ Refer to Windows/Computer Manual
How can I clean the outer case/LCD Panel?	Disconnect the power cord and then clean the monitor with a soft cloth, using either a cleaning solution or plain water. Do not leave any remains of the detergent nor scratch the case. Do not allow any water to go inside the monitor.

Self-Test

Self-Test Feature Check | Warning Messages | Environment | Useful Tips

Your monitor provides a self test feature that allows you to check whether your monitor is functioning properly.

Self-Test Feature Check

1. Turn off both your computer and the monitor.
2. Unplug the video cable from the back of the computer.
3. Turn on the monitor.

 If the monitor is functioning properly, you will see a box in the illustration below.



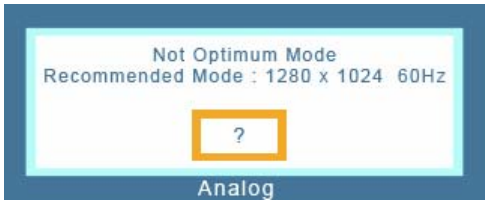
 This box appears during normal operation if the video cable becomes disconnected or damaged.

4. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

 If your monitor screen remains blank after using the previous procedure, check your video controller and computer system; your monitor is functioning properly.

Warning Messages

If there is something wrong with the input signal, a message appears on the screen or the screen goes blank although the power indicator LED is still on. The message may indicate that the monitor is out of scan range or that you need to check the signal cable.



Environment

- The location and the position of the monitor may influence the quality and other features of the monitor.
 - If there are any sub woofer speakers near the monitor, unplug and relocate the woofer to another room.
 Remove all electronic devices such as radios, fans, clocks and telephones that are within 3 feet (one meter) of the monitor.

Useful Tips

- A monitor recreates visual signals received from the computer. Therefore, if there is trouble with the computer or the video card, this can cause the monitor to become blank, have poor coloring, noise, Video mode not supported, etc. In this case, first check the source of the problem, and then contact the Service Center or your dealer.

- Judging the monitor's working condition

 If there is no image on the screen or a "Not Optimum Mode", "Recommended Mode 1280 x 1024 60 Hz" message comes up, disconnect the cable from the computer while the monitor is still powered on.

 - If there is a message coming up on the screen or if the screen goes white, this means the monitor is in working condition.
 In this case, check the computer for trouble.



Specifications

General	
Model Name	SyncMaster 711NT
LCD Panel	
Size	17 inch (43 cm)
Display area	337.92 mm (H) x 270.336 mm (V)
Pixel Pitch	0.264 mm (H) x 0.264 mm (V)
Synchronization	
Horizontal	30 ~ 81 kHz
Vertical	56 ~ 75 Hz
Display Color	
16.7 M	
Resolution	
Optimum resolution	1280 x 1024@60 Hz
Maximum resolution	1280 x 1024@75 Hz
Input Signal, Terminated	
RGB Analog 0.7 Vp-p ± 5 % separate H/V sync, Composite H/V sync TTL level (V high ≥ 2.0 V, V low ≤ 0.8 V)	
Maximum Pixel Clock	

135 MHz

Power Consumption

AC 100 - 240 V ~ (+/- 10 %), 50/60 Hz

Signal Cable

15pin to 15pin D-sub cable, Detachable

Dimensions (W x H x D) / Weight

370.0 x 342.3 x 69 mm / 14.6 x 13.5 x 2.7 inch (Without Stand)
370.0 x 404.3 x 200 mm / 14.6 x 15.9 x 7.9 inch (With Basic Stand), 6.2 Kg / 13.7 (lbs)

VESA Mounting Interface

100 mm x 100 mm (For use with Specialty(Arm) Mounting hardware.)

Environmental considerations

Operating	Temperature : 50°F ~ 104°F (10°C ~ 40°C) Humidity : 10 % ~ 80 %, non-condensing
Storage	Temperature : -4°F ~ 113°F (-20°C ~ 45°C) Humidity : 5 % ~ 95 %, non-condensing

Plug and Play Capability

This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.

Dot Acceptable

TFT LCD panel manufactured by using advanced semiconductor technology with precision of 1 ppm (one millionth) above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE color seem to be bright sometimes or some of black pixels could be seen. This is not from bad quality and you can use it without uneasiness.

For example, the number of TFT LCD sub pixels that is contained in this product are 3,932,160.

※ Design and specifications are subject to change without prior notice.

Class B Equipment (Information Communication equipment for residential use)

- This product complies with the Electromagnetic Compatibility Directives for residential use and can be used in all areas including common residential areas.

 (Class B equipment emits less electromagnetic waves than Class A equipment.)

Client

Item	Specifications
LAN	100 Mbps
USB	2.0 x 4Ports
Internet Browser	MS Internet Explorer

Photo	JPEG,BMP
Photo Audio Video	MPEG1,WMV MP3, WAV, WMA JPEG, BMP

Server Requirement

	Connect Client No	CPU	RAM	Ethernet	OS
Minimum SPEC	Just can load Server Program	P3 400 MHz	64 Mbyte	100 Mbps	windows 2003 Server
Recommend SPEC	1	P4 1.0 GHz	256 Mbyte	100 Mbps	windows 2003 Server
	2~4	P4 2.4 GHz	512 Mbyte		
	5~7	P4 3.0 GHz	1 Gbyte		
	8~10	P4 3.2 GHz	2 Gbyte		

※ The content presented above is the result of testing a specific server. The information may change as the server may be different. For some products, the OS may not be supported. When purchasing a product, make sure to check whether or not the OS is supported.

PowerSaver

This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor into a low-power mode when it has not been used for a certain amount of time. The monitor automatically returns to normal operation when you press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPM compliant video card installed in your computer. Use a software utility installed on your computer to set up this feature.

State	Normal Operation	Power saving mode	Power off EPA/ENERGY 2000
Power Indicator	Green	Green, Blinking	Off
Power Consumption	Less than 50 W	Less than 4.7 W	Less than 2.7 W



This monitor is EPA ENERGY STAR® compliant and ENERGY2000 compliant when used with a computer equipped with VESA DPM functionality.
As an ENERGY STAR® Partner, SAMSUNG has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

Specifications PowerSaver Preset Timing Modes

Preset Timing Modes

If the signal transferred from the computer is the same as the following Preset Timing Modes, the screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and adjust the screen as follows.

Preset Timing Modes

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
IBM, 640 x 350	31.469	70.086	25.175	+/-
IBM, 640 x 480	31.469	59.940	25.175	-/-
IBM, 720 x 400	31.469	70.087	28.322	-/+
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
MAC, 1152 x 870	68.681	75.062	100.000	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 800 x 600	35.156	56.250	36.000	+/+
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 800 x 600	48.077	72.188	50.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1024 x 768	56.476	70.069	75.000	-/-
VESA, 1024 x 768	60.023	75.029	78.750	+/+
VESA, 1152 x 864	67.500	75.000	108.000	+/+
VESA, 1280 x 960	60.000	60.000	108.000	+/+
VESA, 1280 x 1024	63.981	60.020	108.000	+/+
VESA, 1280 x 1024	79.976	75.025	135.000	+/+



Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle and the inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit : kHz

Vertical Frequency

Like a fluorescent lamp, the screen has to repeat the same image many times per second to display an image to the user. The frequency of this repetition is called Vertical Frequency or Refresh Rate. Unit : Hz



Specifications

General

Model Name	SyncMaster 911NT

LCD Panel

Size	19 inch(48 cm)
Display area	376.32 mm(H) x 301.056 mm(V)
Pixel Pitch	0.294(H) x 0.294(V)

Synchronization

Horizontal	30 ~ 81 kHz
Vertical	56 ~ 75Hz

Display Color

16.7 M

Resolution

Optimum resolution	1280x1024@60 Hz
Maximum resolution	1280x1024@75 Hz

Input Signal, Terminated

RGB Analog
0.7 Vp-p ± 5 %
separate H/V sync, Composite H/V sync
TTL level (V high ≥ 2.0 V, V low ≤ 0.8 V)

Maximum Pixel Clock

135MHz

Power Consumption

AC 100 - 240 V ~ (+/- 10 %), 50/60 Hz

Signal Cable

15pin-to-15pin D-sub cable, Detachable

Dimensions (W x H x D) / Weight

416.6 X 375.2 X 74.7 mm / 16.4 x 14.8 x 2.9 inch (Without Stand)
416.6 X 420.9 X 200.0 mm / 16.4 x 16.6 x 7.9 inch (With Stand) / 6.8 Kg / 15.0 (lbs)

VESA Mounting Interface

100 mm x 100 mm (For use with Specialty(Arm) Mounting hardware.)

Environmental considerations

Operating	Operating Temperature : 10℃~ 40℃ Humidity : 10 % ~ 80 %, non-condensing
Storage	Storage Temperature : -20℃~ 45℃ Humidity : 5 % ~ 95 %, non-condensing

Plug and Play Capability

This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.

Dot Acceptable

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Client

Item	Specifications
LAN	100 Mbps
USB	2.0 x 4Ports
Internet Browser	MS Internet Explorer

Photo	JPEG,BMP
Photo Audio Video	MPEG1,WMV MP3, WAV, WMA JPEG, BMP

Server Requirement

	Connect Client No	CPU	RAM	Ethernet	OS
Minimum SPEC	Just can load Server Program	P3 400 MHz	64 Mbyte	100 Mbps	windows 2003 Server
Recommend SPEC	1	P4 1.0 GHz	256 Mbyte	100 Mbps	windows 2003 Server
	2~4	P4 2.4 GHz	512 Mbyte		
	5~7	P4 3.0 GHz	1 Gbyte		
	8~10	P4 3.2 GHz	2 Gbyte		

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PowerSaver

PowerSaver

- This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor into a low-power mode when it has not been used for a certain amount of time. The monitor automatically returns to normal operation when you press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPM compliant video card installed in your computer. Use a software utility installed on your computer to set up this feature.

State	Normal Operation	Power saving mode	Power off EPA/ENERGY 2000
Power Indicator	Green	Green, Blinking	Off
Power Consumption	Less than 50 W	Less than 4.7 W	Less than 2.7 W



This monitor is EPA ENERGY STAR® compliant and ENERGY2000 compliant when used with a computer equipped with VESA DPM functionality.
As an ENERGY STAR® Partner, SAMSUNG has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

Preset Timing Modes

- If the signal transferred from the computer is the same as the following Preset Timing Modes, the

screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and adjust the screen as follows.

Preset Timing Modes

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
IBM, 640 x 350	31.469	70.086	25.175	+/-
IBM, 640 x 480	31.469	59.940	25.175	-/-
IBM, 720 x 400	31.469	70.087	28.322	-/+
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
MAC, 1152 x 870	68.681	75.062	100.000	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 800 x 600	35.156	56.250	36.000	+/+
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 800 x 600	48.077	72.188	50.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1024 x 768	56.476	70.069	75.000	-/-
VESA, 1024 x 768	60.023	75.029	78.750	+/+
VESA, 1152 x 864	67.500	75.000	108.000	+/+
VESA, 1280 x 960	60.000	60.000	108.000	+/+
VESA, 1280 x 1024	63.981	60.020	108.000	+/+
VESA, 1280 x 1024	79.976	75.025	135.000	+/+



Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle and the inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit : kHz

Vertical Frequency

Like a fluorescent lamp, the screen has to repeat the same image many times per second to display an image to the user. The frequency of this repetition is called Vertical Frequency or Refresh Rate. Unit : Hz



Contact SAMSUNG WORLDWIDE

※ If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

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ARGENTINE	0800-333-3733	http://www.samsung.com/ar
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Terms

Dot Pitch

The image on a monitor is composed of red, green and blue dots. The closer the dots, the higher the resolution. The distance between two dots of the same color is called the 'Dot Pitch'. Unit : mm

Vertical Frequency

The screen must be redrawn several times per second in order to create and display an image for the user. The frequency of this repetition per second is called the Vertical Frequency or Refresh Rate.
Unit : Hz

Example : If the same light repeats itself 60 times per second, this is regarded as 60 Hz.

Horizontal Frequency

- The time to scan one line connecting the right edge to the left edge of the screen horizontally is called the Horizontal Cycle. The inverse number of the Horizontal Cycle is called Horizontal Frequency.
 Unit : kHz

Interlace and Non-Interlace Methods

- Showing the horizontal lines of the screen from the top to the bottom sequentially is called the Non-Interlace method while showing odd lines and then even lines in turn is called the Interlace method. The Non-Interlace method is used for the majority of monitors to ensure a clear image. The Interlace method is the same as that used in TVs.

Plug & Play

- This is a function that provides the best quality screen for the user by allowing the computer and the monitor to exchange information automatically. This monitor follows the international standard VESA DDC for the Plug & Play function.

Resolution

- The number of horizontal and vertical dots used to compose the screen image is called the 'resolution'. This number shows the accuracy of the display. A high resolution is good for performing multiple tasks as more image information can be shown on the screen.

 Example :If the resolution is 1280 x 1024 , this means the screen is composed of 1280 horizontal dots (horizontal resolution) and 1024 vertical lines (vertical resolution).

For Better Display

- Adjust computer resolution and screen injection rate (refresh rate) oncomputer as described below to enjoy the best quality of picture. You can have an uneven quality of picture in the screen if the best quality of picture is not provided in TFT-LCD.
 - Resolution : 1280 x 1024
 - Vertical frequency (refresh rate) : 60 Hz
- TFT LCD panel manufactured by using advanced semiconductor technology with precision of 1ppm (one millionth) above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE color seem to be bright sometimes or some of black pixels could be seen.
 This is not from bad quality and you can use it without uneasiness.
 - For example, the number of TFT LCD sub pixels that is contained in this product are 3,932,160.
- When cleaning the monitor and the panel outside, please apply the recommended small amount of cleaner by using a soft cloth to polish. Do not force the LCD area but rub softly.
 If excessive force is applied, you can have a stain on it.
- If you are not satisfied with the picture quality, you can get better quality of picture by performing the "auto adjustment function" in display screen that is appeared as window termination button is pressed.
 If there's still noise after the automatic adjustment, use the FINE/COARSE adjustment function.
- When viewing a fixed screen for an extended period of time, a residual image or blurriness may appear.
 Change the mode to energy save or set a screensaver to move the picture when you need to be away from the monitor for an extended period of time.

Authority

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PRODUCT INFORMATION (Image Retention Free)

LCD Monitors and TVs may have image retention when switching from one image to another especially after displaying a stationary image for a long time.
This guide is to demonstrate correct usage of LCD products in order to protect them from Image retention.

- **Warranty**
 Warranty does not cover any damage caused by image retention.
 Burn-in is not covered by the warranty.

- **What is Image retention ?**
 During normal operation of a LCD panel, pixel image retention doesn't occur. However, if the same image is displayed for a long time, a slight difference in electric charge accumulates between the two electrodes which encase the liquid crystal. This may cause the liquid crystal to build up in a certain areas of the display. Thus, the previous image is retained when switching to a new video image. All display products, including LCD,are subject to image retention. This is not a product defect.

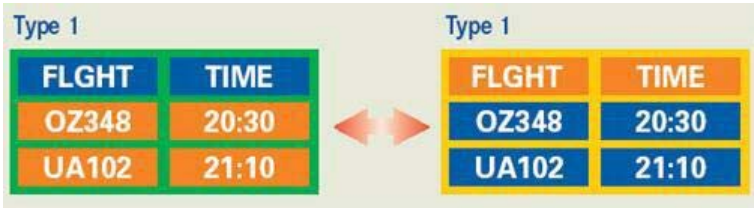
 Please follow the suggestions below to protect your LCD from image retention

- **Power Off, Screen Saver, or Power Save Mode**
 Ex)
 - Turn the power off when using a stationary pattern.
 - Turn the power off for 4 Hours after 20 Hours in use
 - Turn the power off for 2 Hour after 12 Hours in use
 - Use a Screen saver if possible
 - Screen saver in one color or a moving image is recommended.
 - Set the Monitor to power off with the PC Display Properties Power Scheme.

- **Suggestions for specific applications**
 Ex) Airports, Transit Stations, Stock Markets, Banks, and Controlling Systems
 We recommend that you follow set up of your display system program as below:

- **Display Information together with Logo or Moving image cycle.**
 Ex) Cycle : Display Information for 1 hour followed by a
 Display Logo or moving image for 1 minute.

- **Change the Color Information periodically (Use 2 different colors).**
 Ex) Rotate the Color Information with 2 colors every 30 Minutes.



Avoid using a combination of characters and background color with large difference in luminance.
Avoid using Grey colors, which can cause Image retention easily.

- Avoid: Colors with big difference in luminance (Black & White, Grey)

Ex)



- Recommended settings: Bright colors with little difference in luminance

- Change the characters color and background color every 30 Minutes

Ex)



- Every 30 Minutes, change the characters with movement.

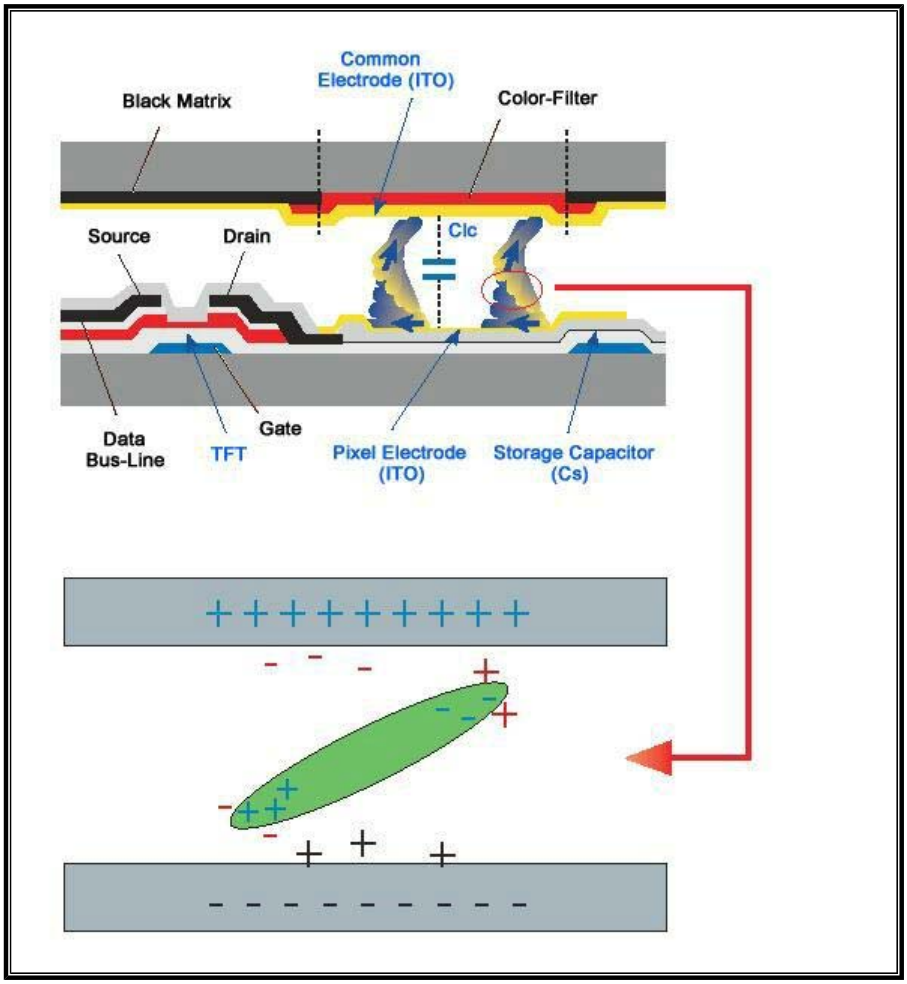
Ex)



- **The best way to protect your monitor from Image retention is to set your PC or System to operate a Screen Saver program when you are not using it.**

 Image retention may not occur when a LCD panel is operated under normal conditions.

 Normal conditions are defined as continuously changing video patterns. When the LCD panel is operated for a long time with a fixed pattern (-over 12 Hours-), there may be slight difference in voltage between electrodes that work the liquid crystal (LC) in a pixel. The voltage difference between electrodes increases with time, forcing the liquid crystal to lean. When this occurs, the previous image may be seen when the pattern is changed.
 To prevent this, the accumulated voltage difference must be decreased.



- Our LCD Monitor satisfies ISO13406-2 Pixel fault Class II